

# IPAF POWERED ACCESS RENTAL MARKET REPORT 2018 – GLOBAL REPORT

*April 2018*

*European Association Award-winner for Best Provision of  
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## CONTENTS – IPAF POWERED ACCESS RENTAL MARKET REPORT 2018 – GLOBAL REPORT

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Foreword	3
Executive summary	14
Europe information	28
North America information	66
United Arab Emirates focus	93

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# FOREWORD

## IPAF Powered Access Rental Market Report 2018 – Europe

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## IPAF

- The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide. IPAF is a non-profit member organisation that represents the interests of rental companies, manufacturers, distributors, users and training companies. It was set up in 1983 and celebrates its 35th anniversary in 2018.
- The IPAF training programme for platform operators is certified by TÜV as conforming to ISO 18878. More than 150,000 people are trained each year through a worldwide network of over 600 IPAF-approved training centres. Successful trainees are awarded the PAL Card (Powered Access Licence), the most widely held and recognised proof of training for platform operators.
- Membership of IPAF is open to users of platforms, manufacturers, distributors, rental and training companies. Members enjoy access to practical information and a growing portfolio of member services. They also have the chance to influence the legislation and regulations that govern platform use. More information can be found at [www.ipaf.org](http://www.ipaf.org)
- IPAF has more than 1,200 members in more than 60 countries.

Additional copies of this report can be ordered at [www.ipaf.org/reports](http://www.ipaf.org/reports) or from your nearest IPAF office. IPAF has also published the IPAF US Powered Access Rental Market Report 2018 – details available at [www.ipaf.org/reports](http://www.ipaf.org/reports)

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## Ducker

- Ducker Worldwide, a premier consulting and research firm, is driven to help its clients achieve their most ambitious growth goals. Custom market intelligence, strategic consulting and transaction advisory services are delivered by fully engaged Ducker Principals and a diverse team of global talent.
- 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 and by Ducker's internal multi-lingual call-centers.
  - Methodological expertise: on-going involvement in strategic consulting within areas such as market sizing and segmentation, distribution structure, competitive positioning, customer satisfaction or market opportunity and new product entry assessments for a variety of products within the global construction and transportation industries among others.
  - Quality charter: Ducker Worldwide works to the guidelines of the ESOMAR ethics standards.
- More information on Ducker can be found at [www.ducker.com](http://www.ducker.com)

This report was produced by the European headquarters of Ducker Worldwide in cooperation with its US headquarters.

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

- The study covers the time period 2008-2019, with particular focus on 2017.
- Main objectives:
  - 2017 MEWP rental market value and fleet size.
  - Trends and dynamics (2008-2019).
  - 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 available than rental revenue. This has allowed for cross-checks, revenue-per-unit ratios and the optimisation of secondary sources.
  - Estimated size of the 2017 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).
  - 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 during the first three months of 2018, 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.

## Products and countries

- The present study focuses on powered access equipment, i.e. 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, mast climbing work platforms, 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 28 EU countries + Norway + Switzerland + Macedonia

## Target companies and respondents

- 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.
    - From rental companies interviewed, on average, MEWP rental revenue represents 71% of their overall rental revenue.
  - 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 were Managing Director, Sales Director, Technical Director, Purchasing Manager, Fleet Manager and Operations Manager.
- Ducker and IPAF would like to thank all industry representatives interviewed, without whose kind assistance it would not have been possible to conduct this research.
- IPAF and Ducker would also like to thank Murray Pollok, Managing Editor of *International Rental News*, for his contributions and commentary on the current rental market.

## Definitions

- **MEWP rental revenue:**
  - Includes for example machine rental rates, machine repair, support (e.g. fuel services), transportation/delivery, training, insurance, operator charges.
  - Used equipment sales are excluded from the MEWP rental revenues reported.
- **Specialists vs Generalists:**
  - For specialists: MEWPs account for more than 50% of total rental revenue.
  - Generalists: MEWPs account for 50% or less of total rental revenue.
- **Cross-Hire:**
  - Rental by one rental company from another rental company (excluded from final results).
- **Utilisation rate:**
  - Physical number of machines out on hire as percentage of total number in fleet at any given time.
- **Retention period:**
  - Average time during which rental companies typically keep their powered access equipment.
- **Rental rate:**
  - Corresponds more to net prices than list prices. Directly linked to the rental revenue.
  - The euro amount that the customer agrees to pay for possession and use of a machine.

## Definitions

- Exchange rates:
  - The currency exchange rates used for countries outside the eurozone are as below (average annual 2017 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.

	<b>Currency Unit</b>	<b>Converter to Euro</b>
Denmark	DKK	0.134
Norway	NOK	0.103
Sweden	SEK	0.101

	<b>Currency Unit</b>	<b>Converter to Euro</b>
UK	£	1.125

	<b>Currency Unit</b>	<b>Converter to Euro</b>
US	USD	0.801

# EXECUTIVE SUMMARY

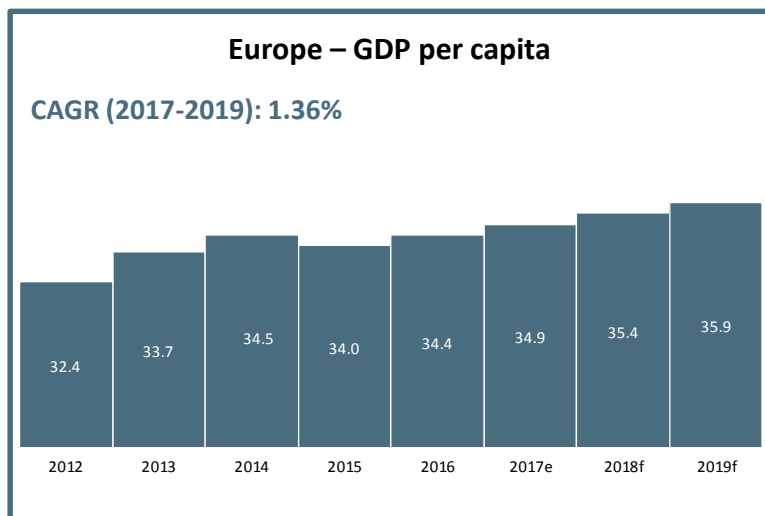
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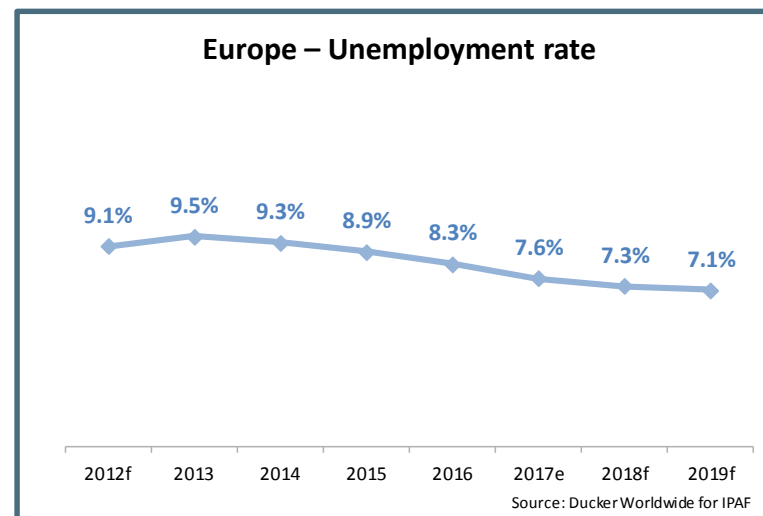


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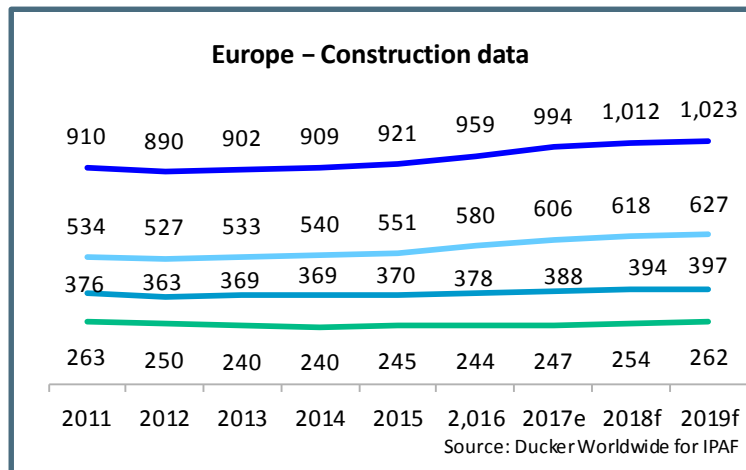
Macro-economic outlooks are positive in Europe: GDP per capita and construction activity are expected to grow, while unemployment is progressively decreasing.



Thousand Euro at 2016 prices. Ten countries under study. Source: Ducker Worldwide for IPAF based on Euroconstruct 2017.



Source: International Monetary Fund, World Economic Outlook Database, October 2017.



Construction put in place in billion Euros based on Euroconstruct 2017.

### Compound Annual Growth Rate (CAGR) (2017-2019)

- Residential construction: 1.66%
- Non-res. constr. : 1.15%
- Total construction: 1.46%

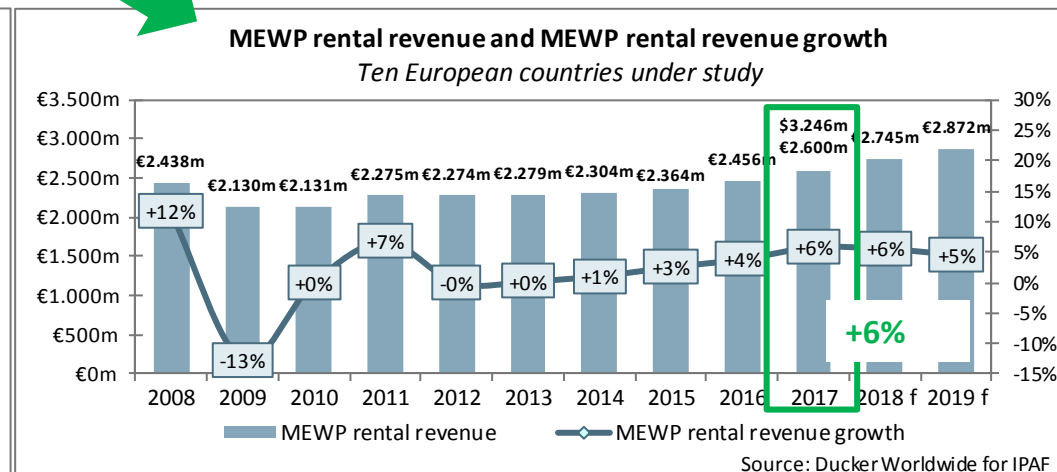
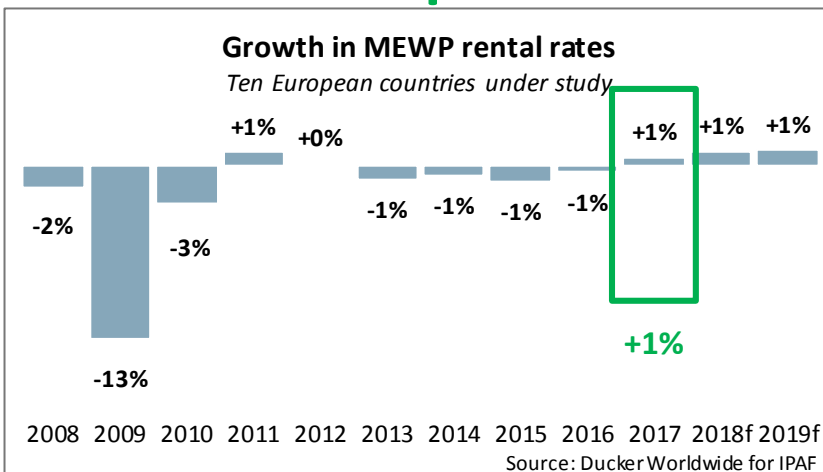
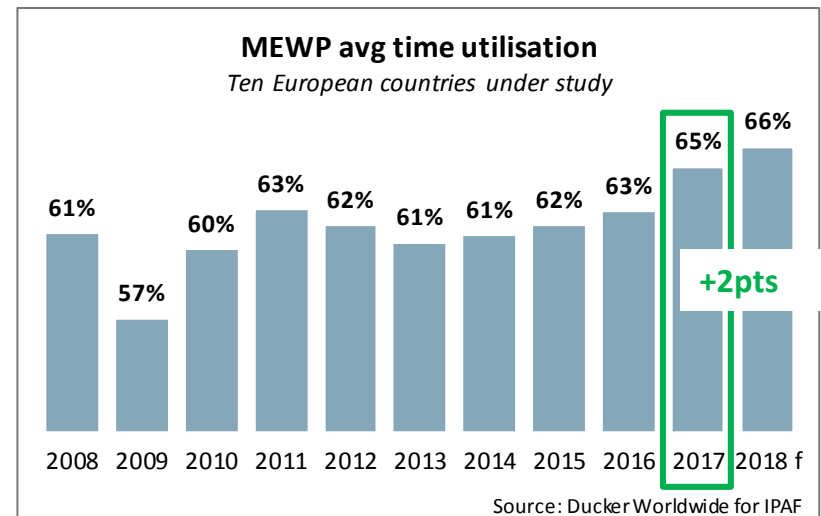
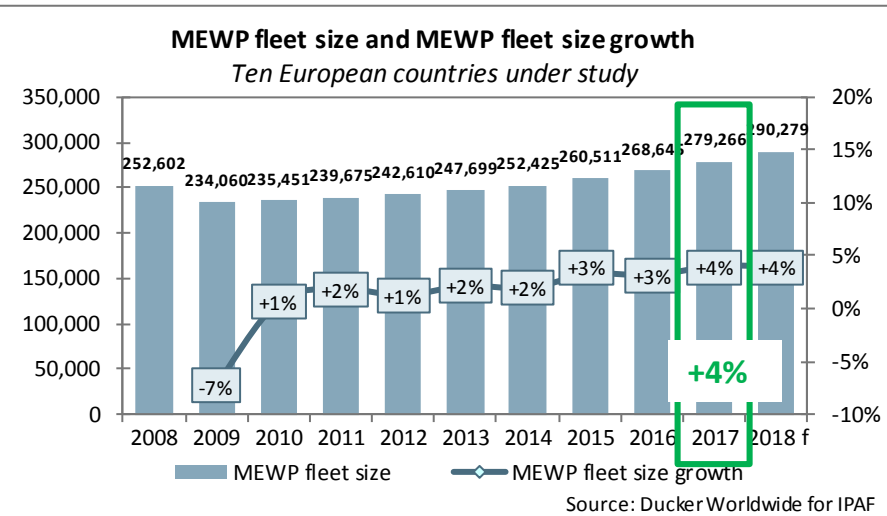
- Residential construction
- Non-residential construction
- Total construction
- Civil engineering

## MEWP rental market situation at end 2017.

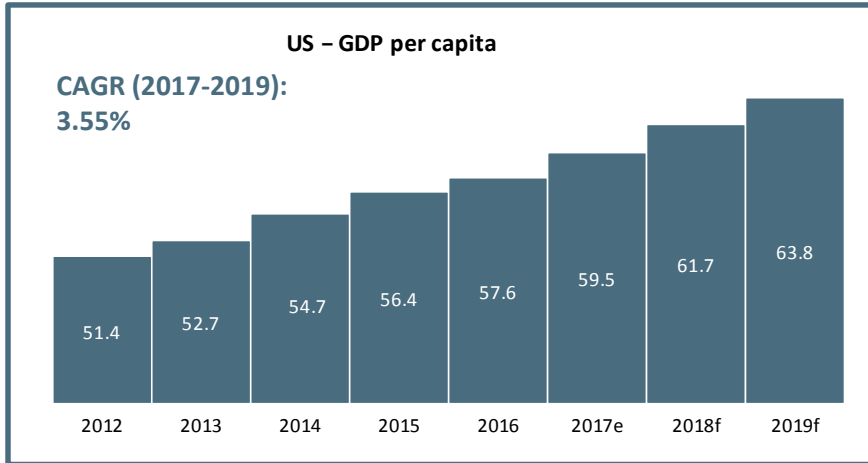
- Building on green shoots of recovery in 2015 and 2016, a more sustained growth trend in the European MEWP rental market was confirmed in 2017.
- In 2017, the European MEWP rental market revenue was equal to €2.6Bn (\$3.2Bn). The market grew significantly in 2017 (+6%) and total market value increased beyond pre-recession levels. Several factors led to such a positive market evolution: The overall economic situation is good, Brexit has had limited impact so far, and both construction and non-construction sectors generated increasing demand.
- Rental companies complied with increasing demand by expanding fleets (+4% growth rate; 279 260 units) and increasing their average utilisation rate (+2 points – now at 65%).
- For the first time in five years, rental companies managed to increase average rental rates (+1% European average; +2% in France and in Spain).
- Nevertheless, this overall improvement hides a number of variances across the ten European countries under study. For instance, intense competition in Germany and the UK prevented rental companies from increasing rental rates (0%). In Nordic countries, the pressure remained intense and led to further decreases (-1% and -2% respectively in Denmark and in Norway).
- Increasing emphasis on maintaining a high-quality fleet allowed rental companies to maintain their attractiveness and competitiveness.
- A clear trend is identified towards greener equipment, with rental companies investing mainly in electric machines, and hybrid machines to a lesser extent. MEWP manufacturers' order books were said to be almost full for 2018, leading to forecasts of another positive year ahead for the European MEWP rental market.



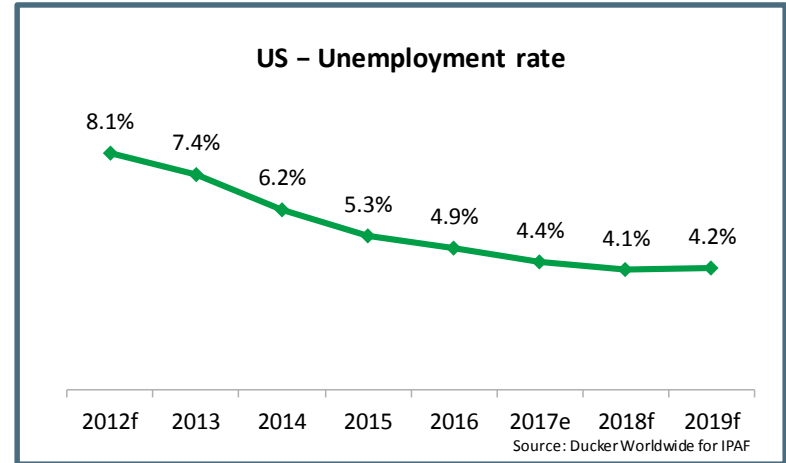
The European market experienced significant (6%) growth in 2017, driven by an increase of all major indicators. The outlooks for 2018 are similar as in 2017 and sustained market growth is expected.



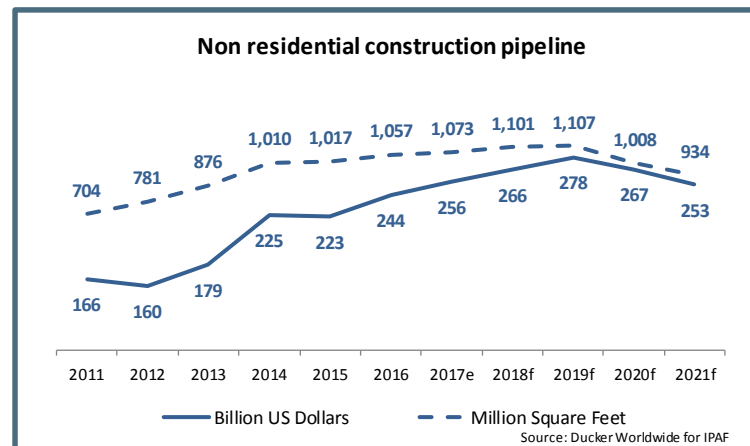
The US economy is expected to sustain positive growth in the next two years, including an increase of the GDP per capita, an overall increase of non-residential construction trends and falling unemployment.



Thousand US dollars. Source: International Monetary Fund, World Economic Outlook Database, October 2017



Source: International Monetary Fund, World Economic Outlook Database, October 2017



Source: McGraw-Hill Construction, Dodge Construction Outlook 2017

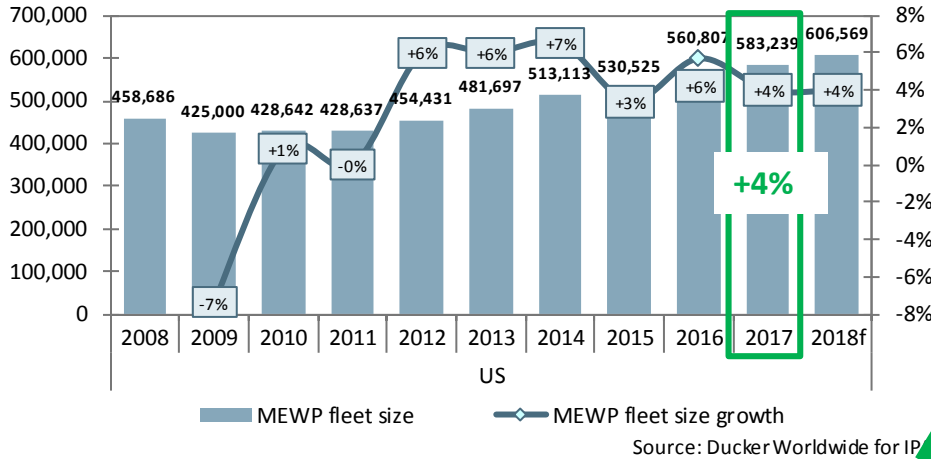
**Compound Annual Growth Rate (CAGR) (2010-2020): 5.00%**

## MEWP rental market situation at end 2017.

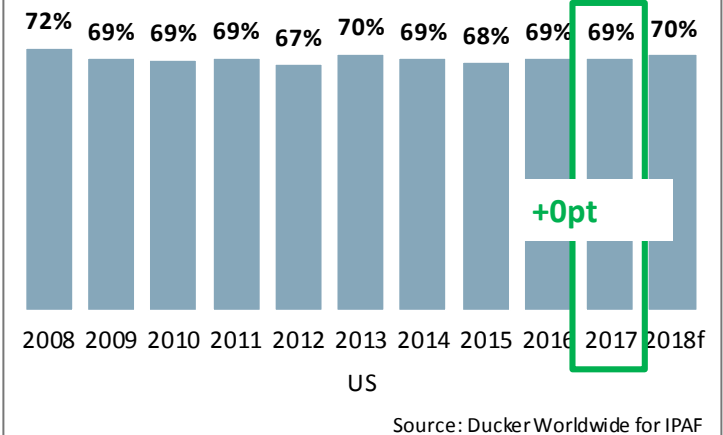
- The MEWP rental market continued to develop significantly in 2017, growing by 5%. Total market value was equal to \$9.4Bn (€7.5Bn), encouraged by the recovering economic situation and growing trend in all construction sectors.
- The total number of MEWPs in the rental fleet was more than 583,000 units, a rise of 4% in 2017. Scissors lifts are still the dominant type of equipment on the market.
- The construction sector accounts for almost three-quarters of MEWPs rental applications. Though activity is currently very fast-growing, the overall construction sector outlooks become more uncertain from 2019 onwards.
- As a result, rental companies take a relatively cautious attitude in their business strategy, expanding fleets to meet existing demand and managing to increase rental rates, but many intend to begin reducing their investment levels from 2019.

All major indicators show positive and sustainable growth for the US MEWP rental market. The market is driven by a combination of strong demand for MEWP equipment as compared to supply. In addition, markets are enjoying favourable government policies linked to the Trump administration.

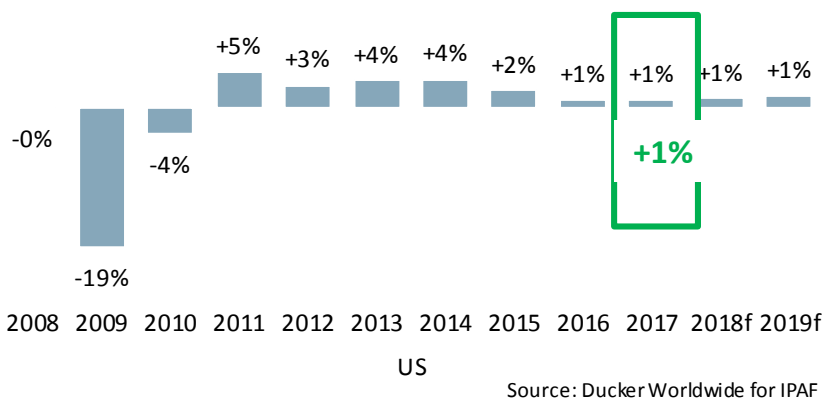
**MEWP fleet size and MEWP fleet size growth**



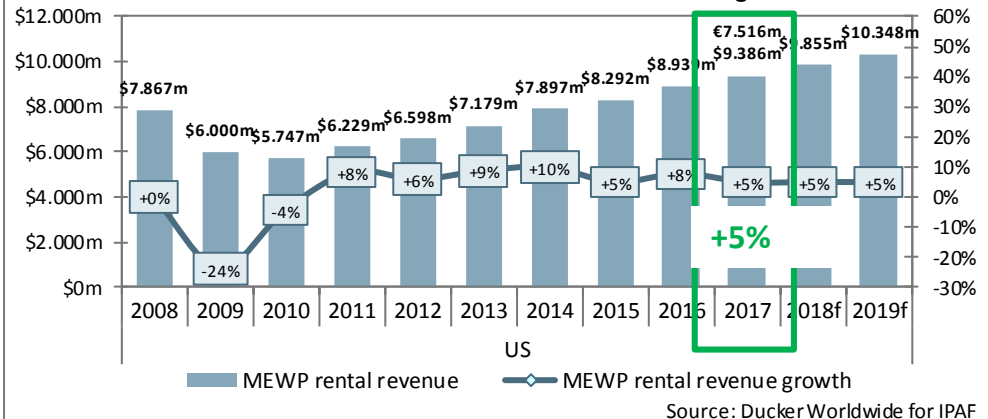
**MEWP average time utilisation**



**Growth in MEWP rental rates**



**MEWP rental revenue and MEWP rental revenue growth**

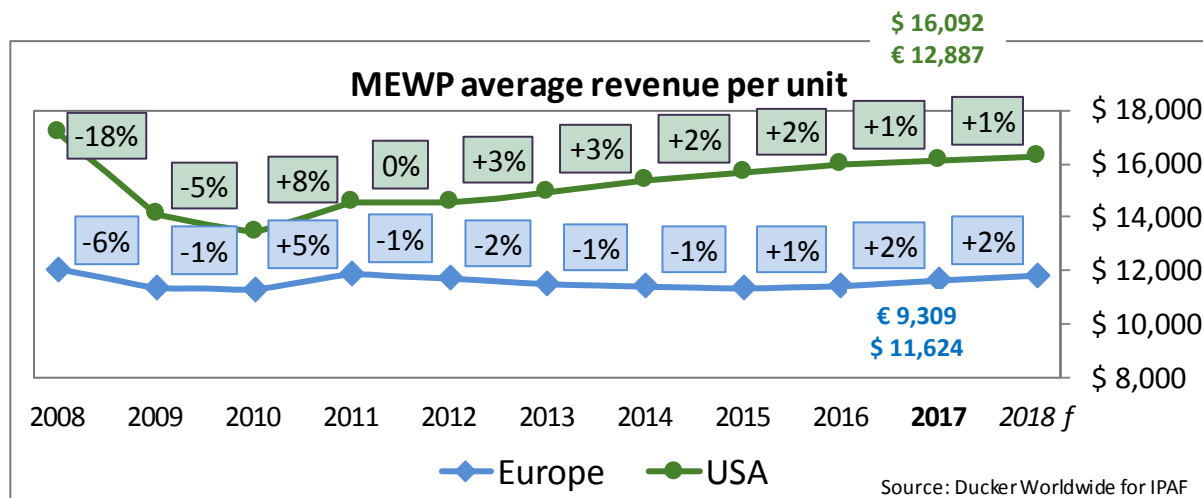


Both the European and US markets have experienced relatively similar market growth in 2017 (around 5-6%), driven by an increase in demand and overall favourable economic contexts.

Region	2017 revenue growth	2017 revenue	2017 fleet size growth	2017 fleet size	Utilisation rate growth	Rental rate growth
Europe*	+ 6%	€2.6 / \$3.2 Bn	+ 4%	279,266	+ 2 pts	+ 1%
USA	+ 5%	\$9.4 / €7.5 Bn	+ 4%	583,239	+ 0 pt	+ 1%

Exchange rate \$1 = €0.801

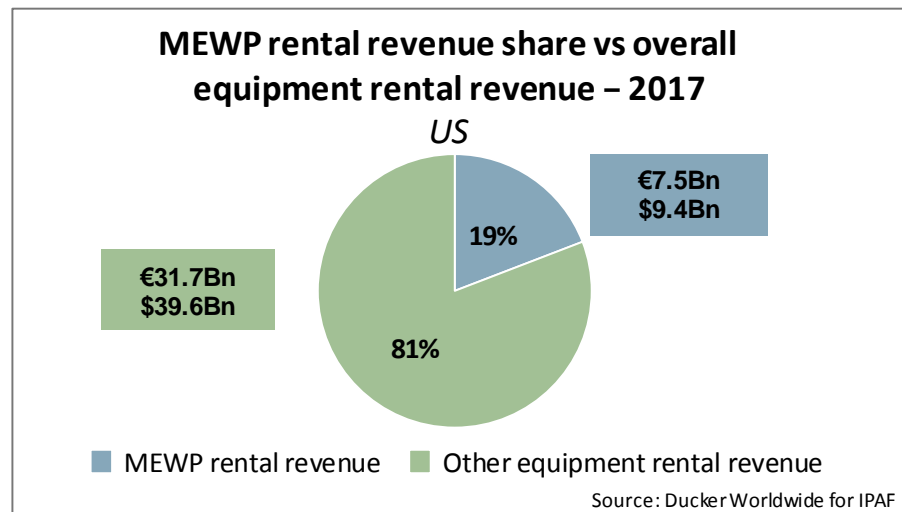
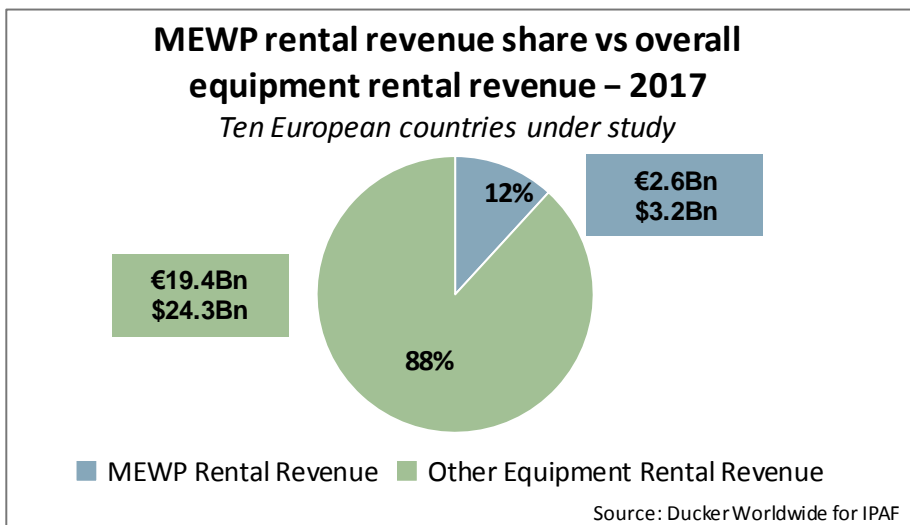
- Though both the European and the US markets experience similar growth in 2017, the contexts vary: The US MEWP rental market grew for the sixth year in a row, while the trend for growth has begun more recently in Europe.
- Average revenue per unit also grew at a relatively similar pace in both Europe and the US. The European MEWP rental market is now slightly growing faster than the US one.



\*Ten countries under study – representing approx. 85% of the entire European market revenue.



MEWP rental market penetration among total rental market is more significant in the US, with a level close to 20%. It is more limited in Europe, at 12% in average (source ERA).



ERA overall equipment rental revenue includes:

1. General plant
2. Tools & general equipment
3. Access
4. Power generation & temperature Control
5. Accommodation & fencing
6. Industrial machinery
7. Crane

ARA overall equipment rental revenue includes:

1. Party & event
2. General tools
3. Construction & industrial equipment

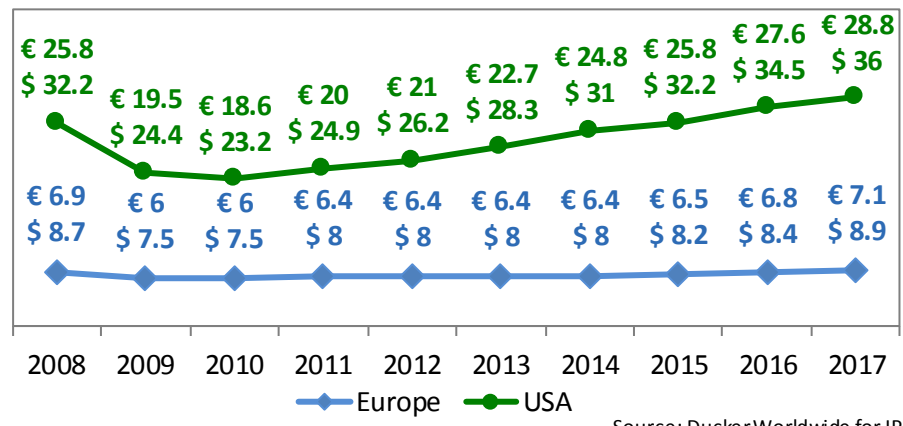
Exchange rate: \$1 = €0.80084

ARA: American Rental Association

ERA: European Rental Association

Similar to 2016, the US rental revenue per inhabitant and fleet size per capita both rose, and at a faster rate than in Europe. The US market overall size is higher.

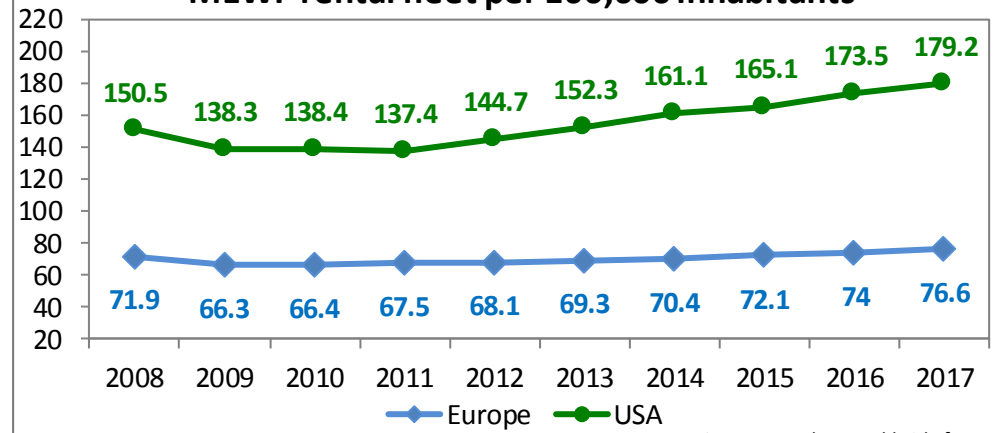
### MEWP rental revenue per inhabitant



Source: DuckerWorldwide for IPAF

- Average MEWP rental revenue per inhabitant has been increasing in both the US and Europe since 2010. Nevertheless, a stronger growth pace is encountered in the US than in Europe.
- Rental fleet size has increased in both the US and Europe, but at a markedly faster rate in the US.

### MEWP rental fleet per 100,000 inhabitants



Source: DuckerWorldwide for IPAF



In 2017, the worldwide rental MEWP fleet size reached 1.35m units. Strong Asian growth is driven by China, Malaysia, Singapore and Thailand, while the Latin American fleet grew in 2017 but at a much slower rate than the US or Europe.

North America	
Articulated booms	117,400
Straight booms	137,800
Scissors	378,000
Others	17,800
<b>Total</b>	<b>651,000</b>

EAME	
Articulated booms	98,300
Straight booms	28,100
Scissors	181,000
Others	58,400
<b>Total</b>	<b>365,800</b>

ASIA - PAC	
Articulated booms	33,200
Straight booms	50,300
Scissors	149,800
Others	54,000
<b>Total</b>	<b>287,300</b>

Latin America*	
Articulated booms	19,700
Straight booms	4,900
Scissors	20,200
Others	3,400
<b>Total</b>	<b>48,200</b>

Overall Europe (28 countries) accounts for 94% of total EAME fleet

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

\*Includes Mexico

# EUROPE INFORMATION

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Region	Market Situation 2017	GDP	Overall construction	MEWP Rental Market	Key Indicator
Norway	Flat market. Positive outlooks due to construction.	↑ +1.8%	↑ +6%	= 0%	Flat rental rates Little or no fleet expansion
Denmark	Favorable construction demand.	↑ +2.3%	↑ +2%	↑ + 2%	Strong competition driving rates down
Sweden	Positive outlooks until 2019, driven by construction.	↑ +2.8%	↑ +9%	↑ + 3%	All indicators positive
UK	Moderate growth, driven by construction demand.	↑ +1.6%	↑ +2%	↑ + 4%	Moderate fleet expansion Intense competition driving rates down
Germany	Dynamic market, driven by demand in all sectors.	↑ +1.9%	↑ +2%	↑ + 5%	Fleet & utilisation rates increase Flat rental rates
Spain	Market growth, though profitability is marginal.	↑ +3.1%	↑ +7%	↑ + 6%	All indicators positive
Finland	Strong market growth expected until 2019.	↑ +3.0%	↑ +3%	↑ + 6%	
Italy	Rapidly growing market fueled by increased demand.	↑ +1.4%	↑ +1%	↑ + 7%	
Netherlands	Market driven by demand in construction.	↑ +3.3%	↑ +5%	↑ + 8%	
France	Strong growth confirmed, and positive outlook	↑ +1.7%	↑ +3%	↑ + 10%	
Europe (Ten countries)	Confirmed growing demand	↑ + 1.8%	↑ + 4%	↑ + 6%	Fleet expansion Improvement of rental rates

# MARKET SIZE 2008 - 2019

## IPAF Powered Access Rental Market Report 2018 – EUROPE

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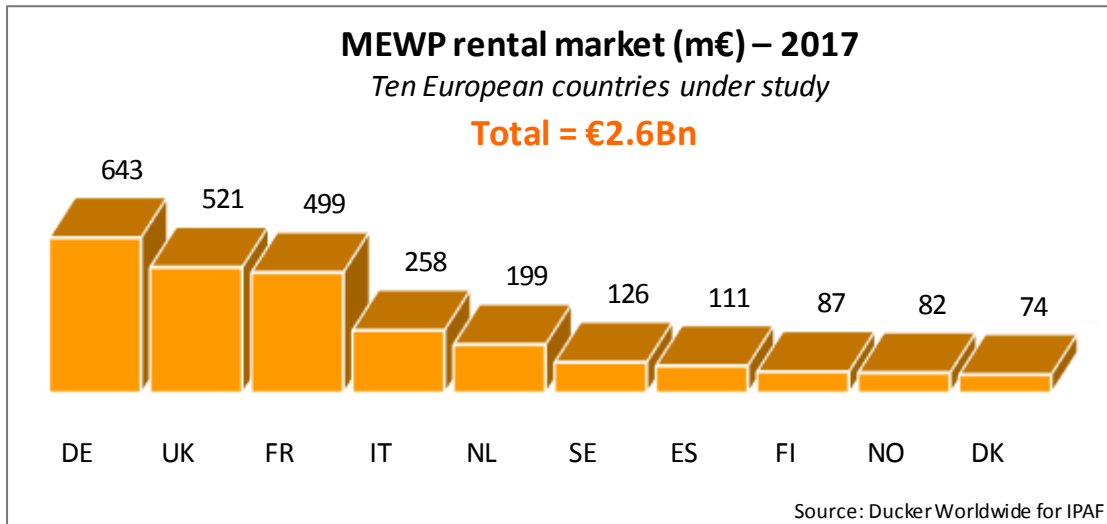


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The MEWP rental market (ten European countries under study) is estimated at approximately €2.6Bn in 2017. Total European\* market value is estimated at €3Bn.

- Three markets dominate the European MEWP rental market. Germany, the UK and France account for 64% of the revenue generated by MEWP rental activity in the ten countries under study.
- Market values grew in almost all countries in 2017, except in Norway, where it remained stable. The market in Finland outgrew the Norwegian market in 2017.

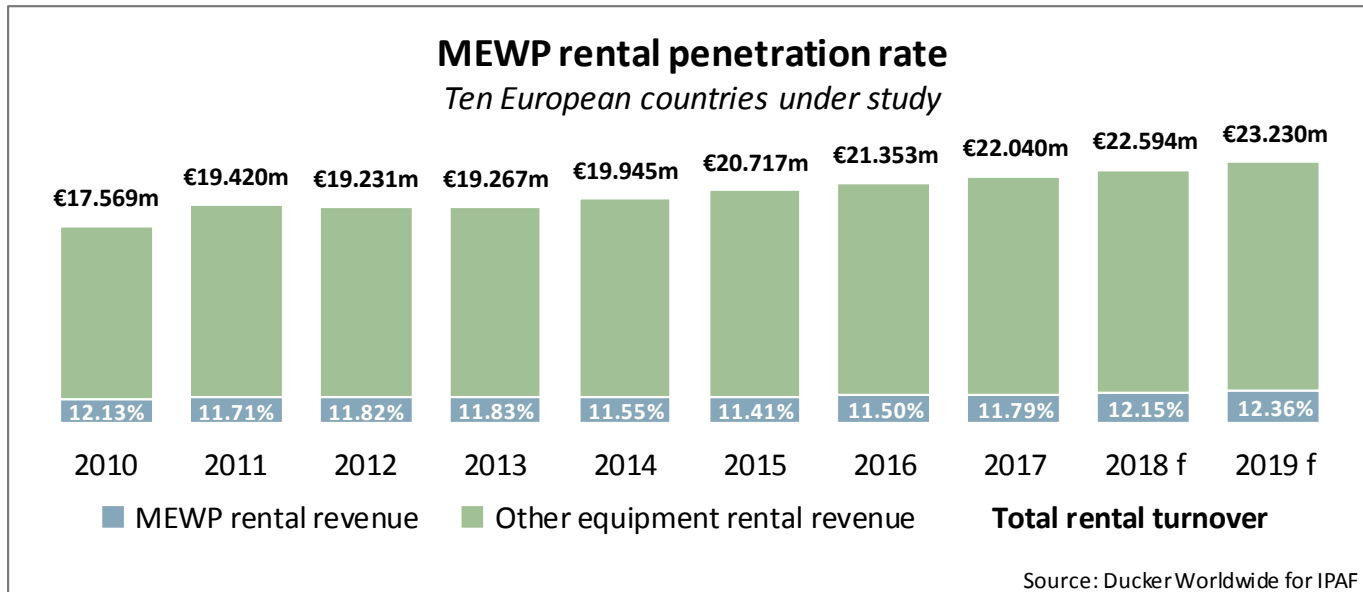
- In 2017, the overall European market experienced stronger growth than the previous year.
- Favourable economic conditions, in addition to growing construction activity, helped fuel demand for MEWP rentals.
- Rental revenue as a percentage of total company revenue remained stable (57% in 2017) and MEWPs gained share among total rental revenue (71% in 2017, versus 67% in 2016).
- Almost all of the ten European markets under study grew in 2017, sometimes by double digits (France: 10%). In Norway, revenue stagnated (0%).



2017	Total	UK	FR	ES	IT	DE	NL	DK	NO	SE	FI
<b>Rental Revenue as % of Total Company Revenue</b>	57%	56%	64%	45%	51%	43%	60%	76%	75%	79%	70%
<b>MEWP Revenue as % of Total Rental Revenue</b>	71%	99%	46%	53%	73%	85%	62%	78%	50%	33%	40%
<b>MEWP Rental Revenue as % of Total Company Revenue</b>	36%	55%	30%	24%	37%	36%	37%	59%	37%	26%	28%

MEWP rental market penetration continues to increase as a proportion of the total European rental market revenue.

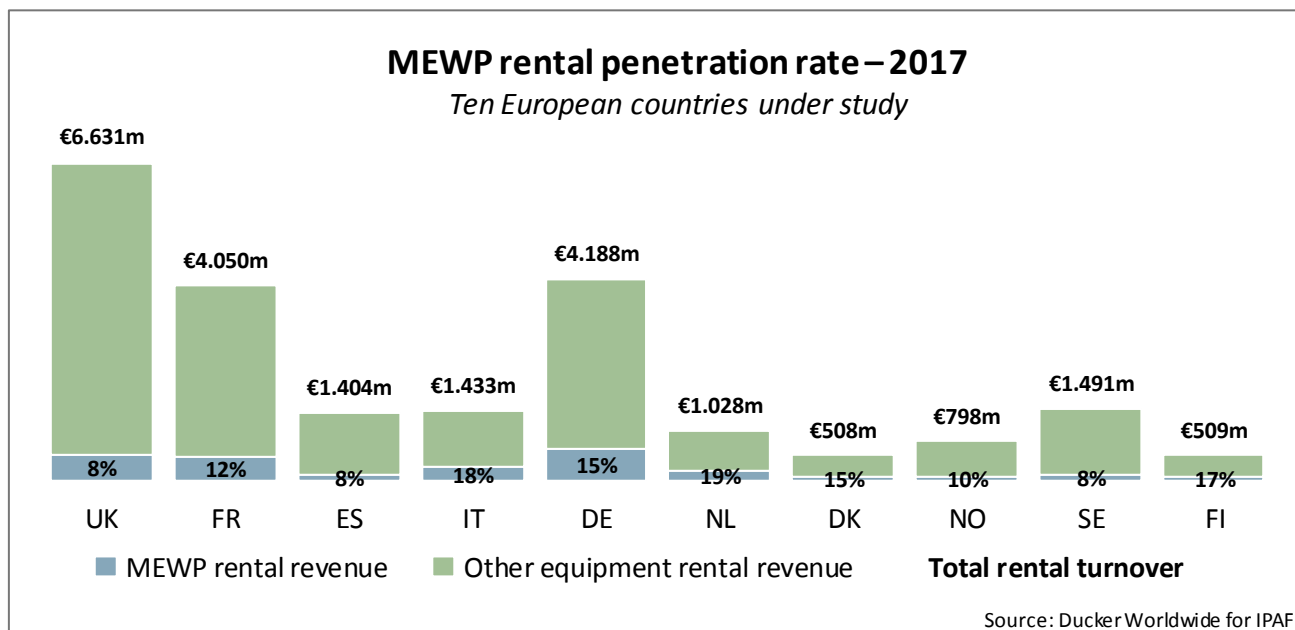
- MEWP rental market penetration is following the trend identified in last year’s report and is expected to continue to grow in the next few years.
- It is expected to go beyond 12% in 2018.



*Source for total rental turnover: ERA 2017 Report.*

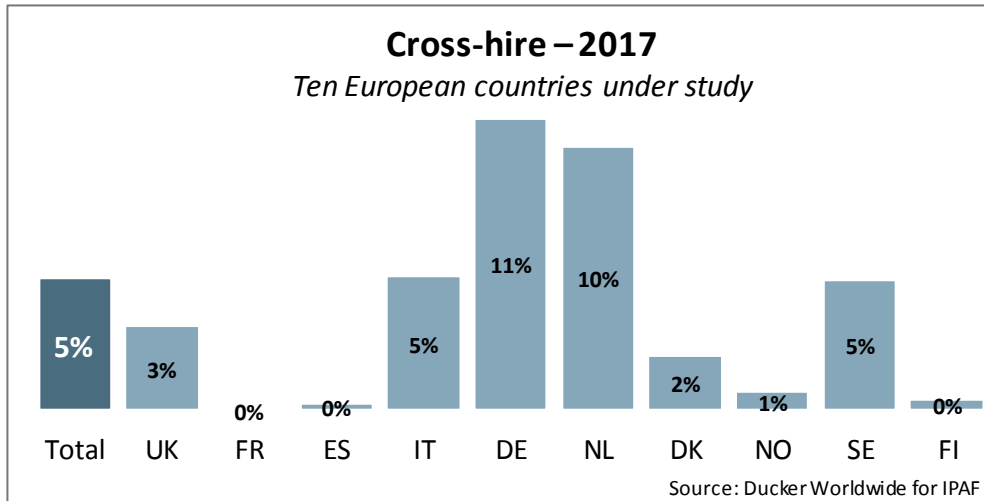
Some significant differences can be identified between the ten European countries under study regarding MEWP rental penetration, which is highest in the Netherlands (19%) and lowest in Spain and Sweden (8%).

- Similar to last year’s report edition, the highest MEWP rental penetration rates (above 15%) are encountered in the Netherlands, Italy, Finland, Germany and Denmark, while the lowest rates (below 10%) are encountered in Spain, the UK and Sweden.
- Penetration levels evolve only slightly every year.

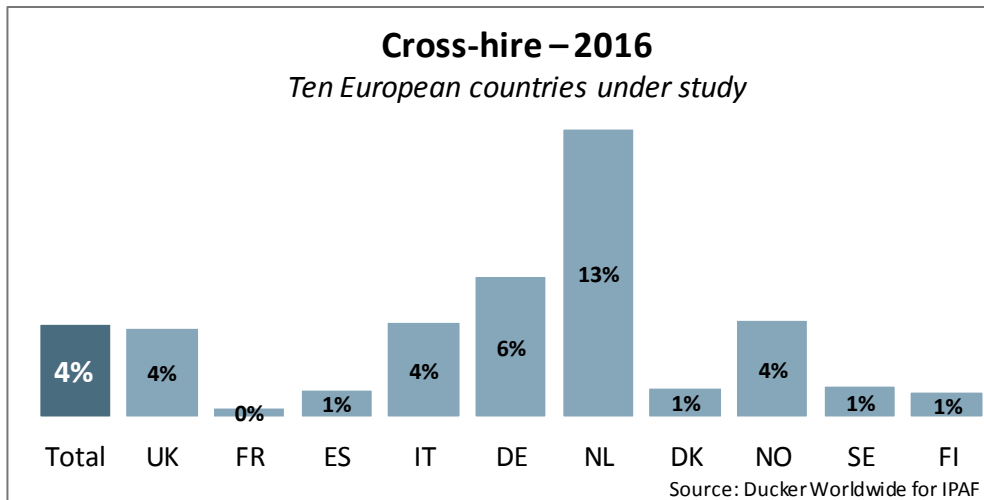


Source for Total Rental Turnover: ERA 2017 Report.

After becoming less common in 2016 than in previous years, cross-hire returned to 2015 levels of around 5% across the board, owing mainly to increased and specific demand in countries such as Sweden, Germany and the Netherlands.



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

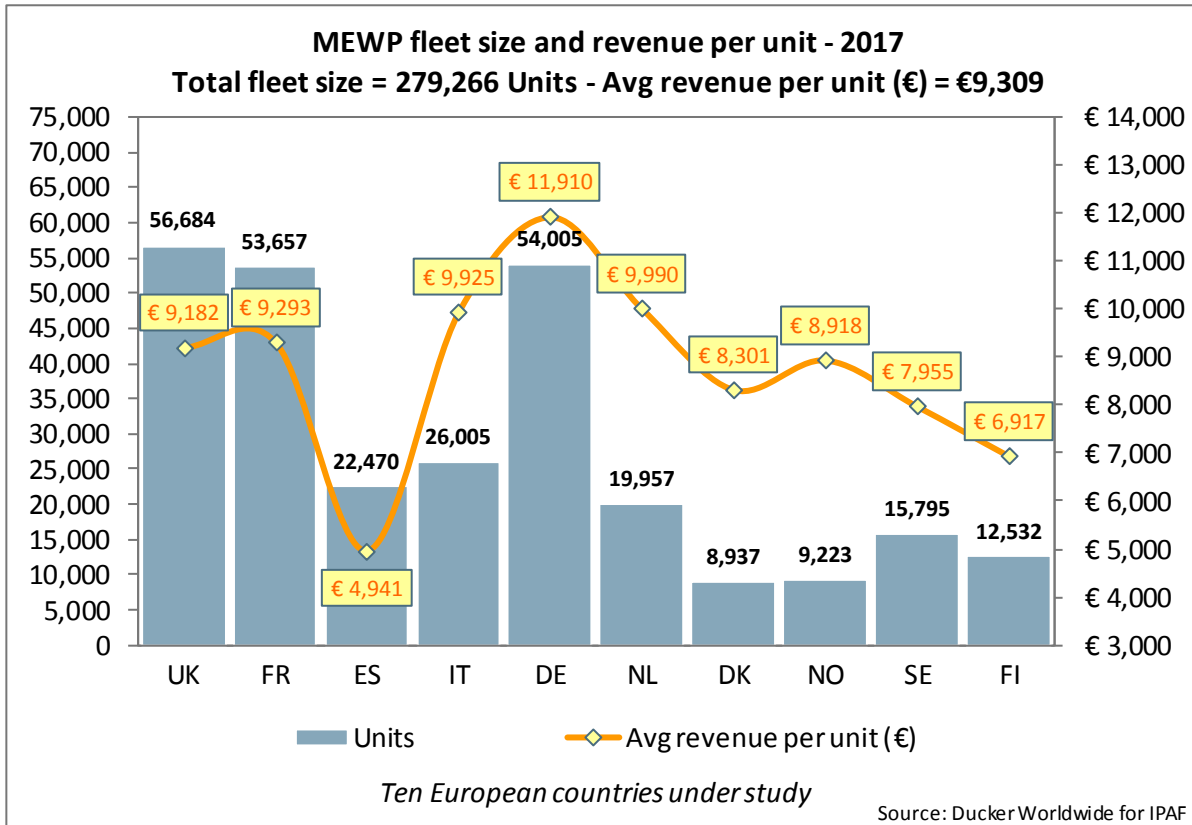


Cross-hire = Rental by one company from another

- Germany and the Netherlands are the countries where the level of cross-hire is strongest (equal to 10%). Both markets are experiencing strong growth, with demand for increased fleet availability necessitating temporary solutions via cross-hire.
- Cross-hire also increased in Sweden, where rental companies needed to meet express demands for MEWP rental, leading them to increase their cross-hire practice.
- Cross-hire remains negligible in other Nordic countries, as well as in France and Spain.
- In the UK and Italy, the level of cross-hire remained relatively stable, at under 5%.



MEWP fleet size is estimated at approximately 279,300 units in the ten European countries under study. The overall European\* fleet size is estimated at approximately 345,000 units at the end of 2017.

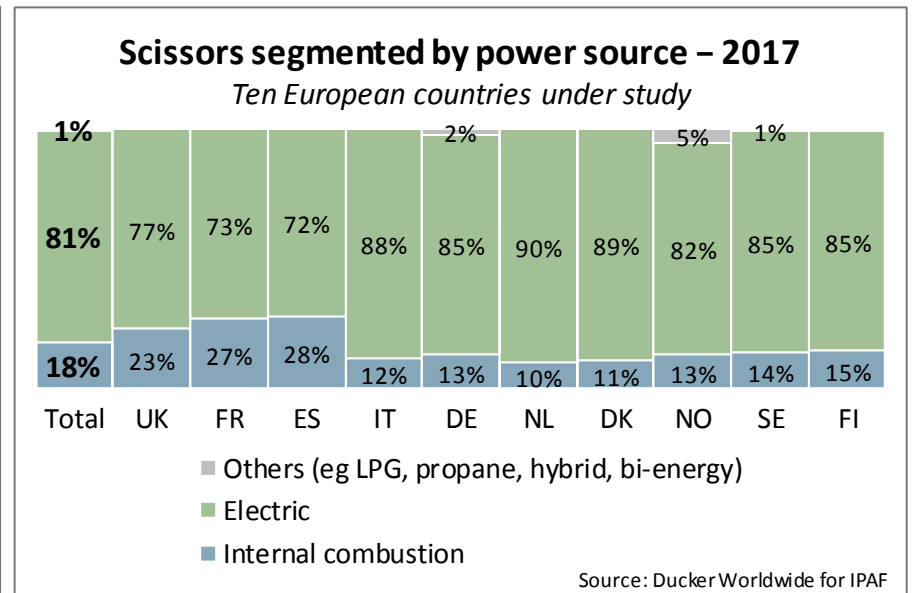
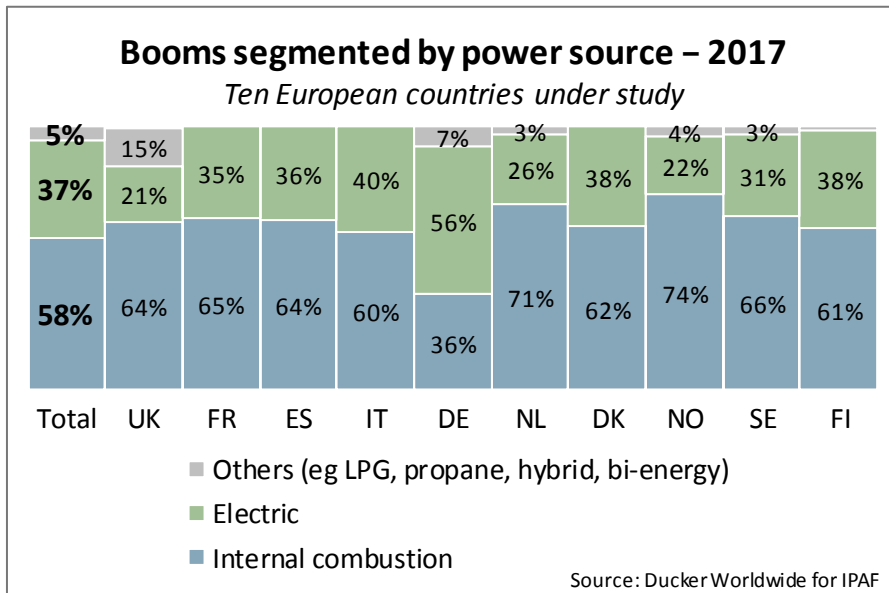


End of the year data

- The UK MEWP rental fleet is still the largest, followed closely by the German and the French fleets. Fleet size in each of these three countries is more than 50,000 units.
- Average revenue per unit increased in 2017, and is now more than €9,300.
- Germany has the highest revenue per unit, being the only country where average revenue per unit is more than €10,000.
- The average revenue per unit remains lowest in Spain, where it is still below €5,000, threatening MEWP rental companies' profitability. Nevertheless, this indicator has increased incrementally year-on-year as the market and economic conditions recover from the 2008 downturn.

The European MEWP rental market continues its trend towards greener machines. The total share of hybrid and electric equipment remained stable or increased in Europe across all main equipment categories.

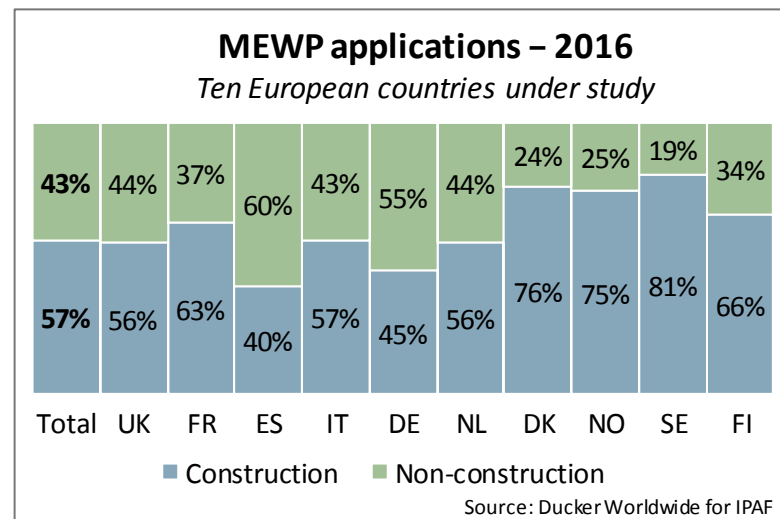
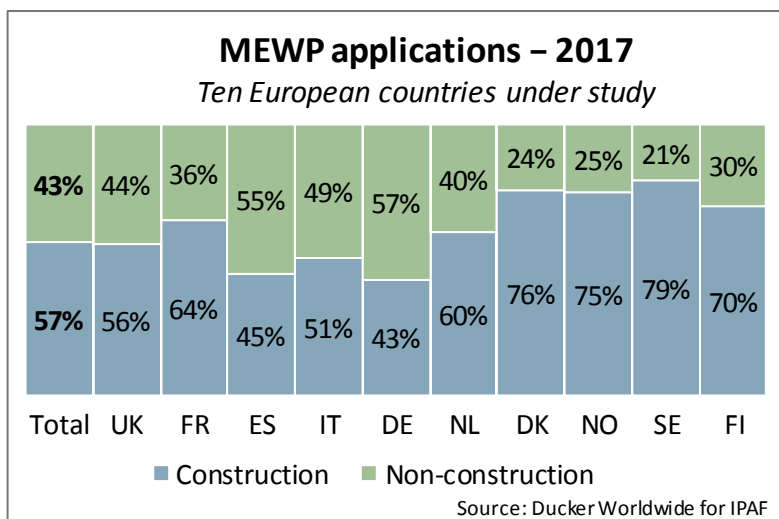
- Although the proportion of hybrid-powered MEWPs remains relatively low at present, this type of MEWP is expected to gain ground over the next few years as rental companies look to diversify their fleets and equip themselves with versatile machines that can serve customer demand and conform to tighter emissions legislation. Investment in hybrids is also likely to increase as demand rises and manufacturers reduce purchase prices accordingly.
- Furthermore, the trend towards cleaner, greener and more efficient MEWPs is evidenced by a number of rental companies that say they intend to switch to using only electric or hybrid machines in the near to medium term.



*Percentage of fleet powered by electric vs internal combustion.*

The split between construction and non-construction applications changed little in 2017 and remains at 57% in favour of construction. In Spain, Italy, Germany and Sweden non-construction applications grew significantly.

- The share of non-construction applications increased in Spain, Italy, Germany and Sweden: rental rates are said to be more attractive with this category of end-customers applications and thus, rental companies try to diversify their customer base.
- In other countries under study, the split tended to stay the same as in previous years or saw construction applications increase. Overall European construction activity is growing relatively rapidly, especially in France, the Netherlands and Finland.



*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 – 2019

## IPAF Powered Access Rental Market Report 2018 – EUROPE

*The International Powered Access Federation*

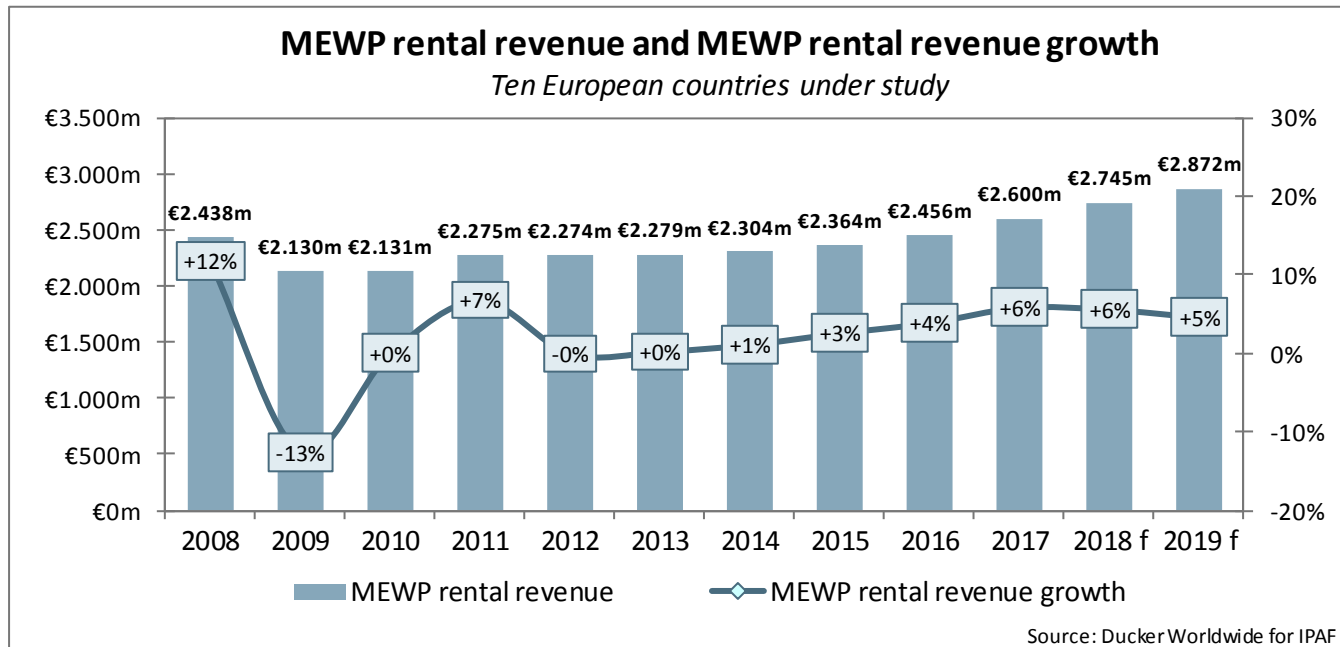
*[www.ipaf.org/reports](http://www.ipaf.org/reports)*



DUCKER WORLDWIDE

European MEWP rental revenue continued to grow in 2017 at a more rapid pace than in 2016, and reached a total value of €2.6Bn.

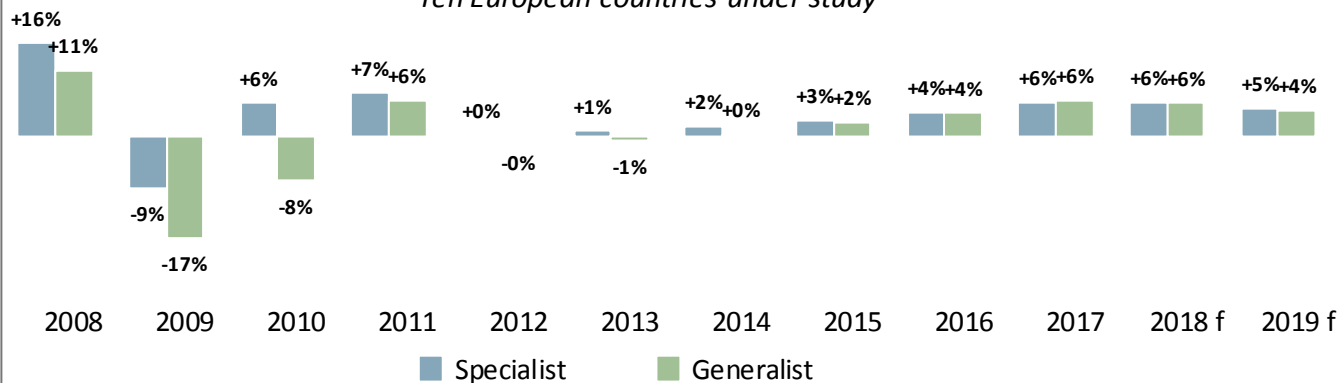
- The European MEWP rental market is currently in a strong positive growth phase.
- All ten European MEWP rental markets under study experienced market growth, with relative stagnation in one (Norway).
- The market is expected to continue to grow at +5-6% per year over the next few years and its value should reach around €3Bn in 2019.
- The European MEWP rental market is even showing signs of slightly stronger growth than the US market in 2017, though the growth trend is more recent in Europe than in the US.



In 2017, all ten European MEWP rental markets grew. Growth rates varied from one country to another and ranged between stable market revenue in Norway and 10% in France.

## MEWP rental revenue growth

Ten European countries under study



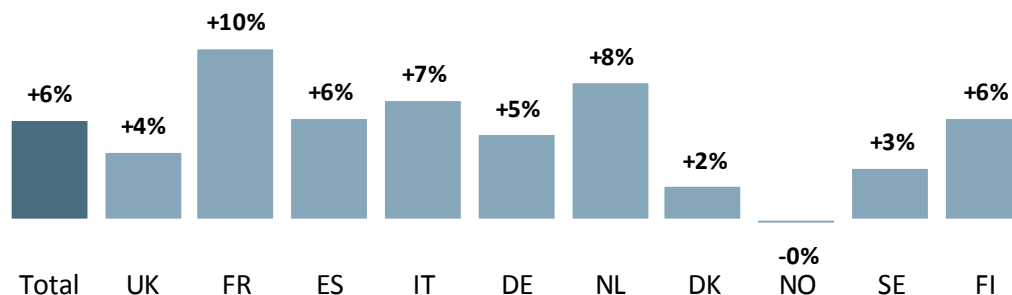
Source: Ducker Worldwide for IPAF

- In 2017, the MEWP rental revenue growth rate was similar for both generalist and specialist companies, for the third year in a row.
- Trends are expected to remain similar in 2018 perhaps with a slightly higher revenue growth for specialist companies in 2019.

- France experienced the strongest revenue growth in 2017, with a double-digit rate (10%).
- The Netherlands, Italy, Spain, Finland and Germany experienced a significant increase (>5% growth) as well.
- Norway is the only country where revenue stagnated in 2017.

## MEWP rental revenue growth – 2017

Ten European countries under study

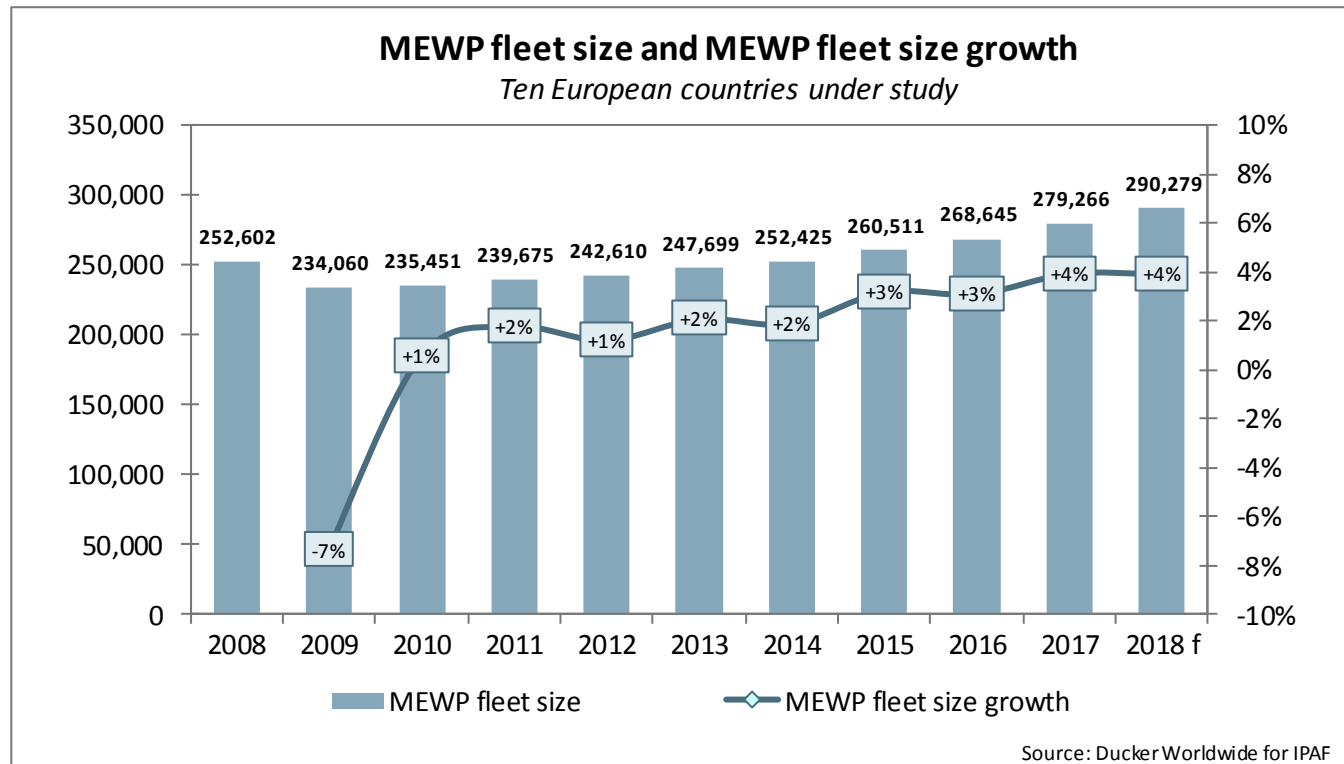


Source: Ducker Worldwide for IPAF

\* Defined as 28 EU countries, Norway, Switzerland, Slovenia and Macedonia

As forecast in last year’s report, fleet size of the ten countries under study grew significantly in 2017 to reach almost 280,000 units.

- Total MEWP European fleet size grew by 4% in 2017, levels of growth that have hitherto been unprecedented since the 2008-09 downturn.
- As markets have recovered and entered a phase of sustained growth, rental companies have expanded fleet size to comply with existing and forecast demand in 2017 and over the next few years.



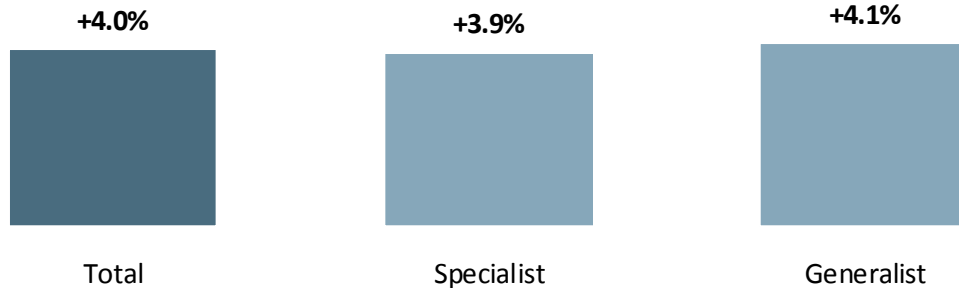
*Note: Included are powered access equipment, all booms, scissor lifts and vertical masts;  
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers;*

*End-of-year data*

MEWP rental fleets grew in all ten countries under study except Norway in 2017 for the second year in a row. Both specialist and generalist companies reported strong fleet size growth rates in 2017.

### MEWP fleet size growth – 2017

Ten European countries under study



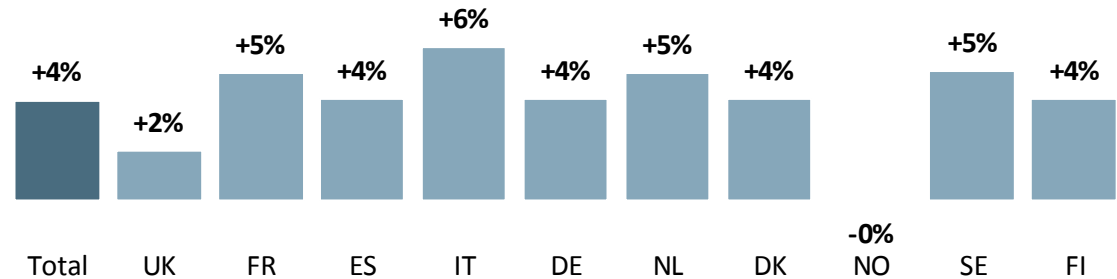
Source: Ducker Worldwide for IPAF

- The 2017 fleet size expansion was a trend among both generalist and specialist companies.
- Fleet size growth rate was very similar for both generalist and specialist companies.

- Fleet size expansion occurred (>4%) in most of the European countries under study.
- The trend remained more moderate in the UK, where some players consider that the market is currently over-capacity.
- Fleet size changed little in Norway in 2017 again.

### MEWP fleet size growth – 2017

Ten European countries under study

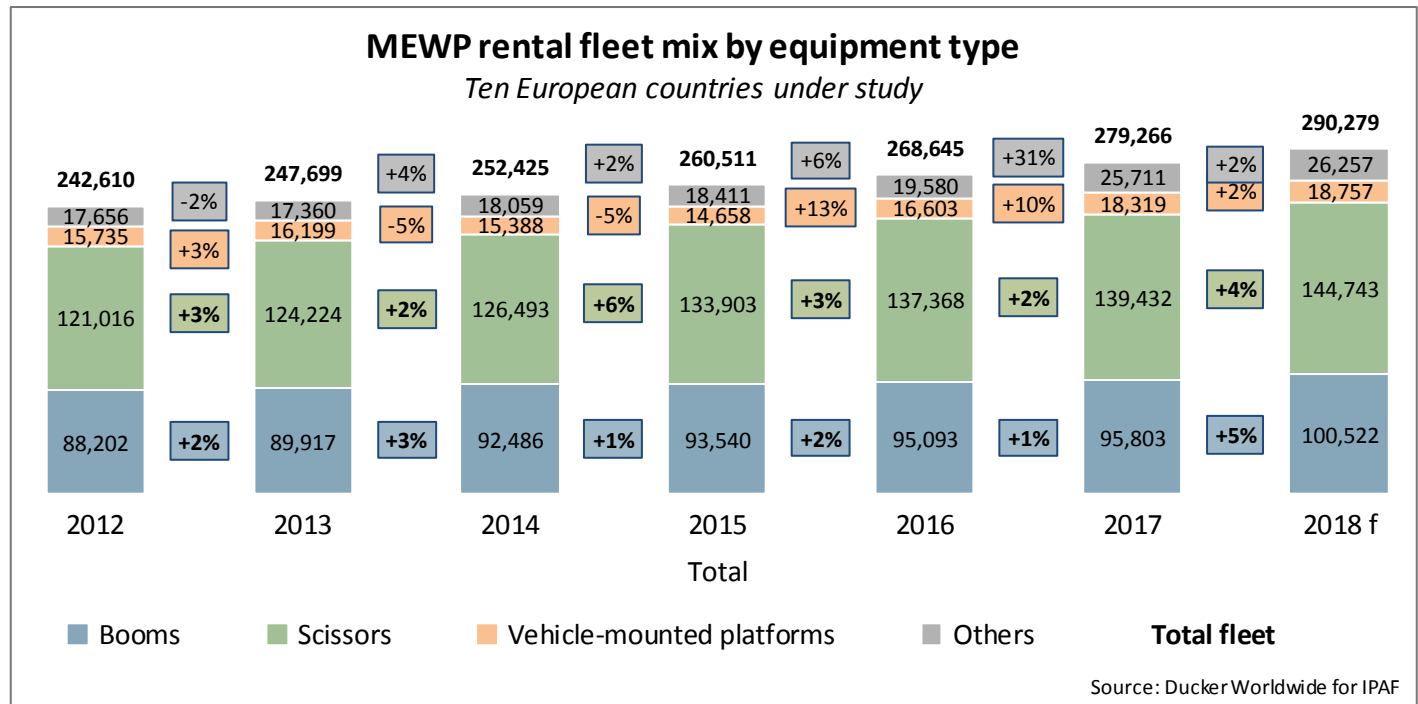


Source: Ducker Worldwide for IPAF



The typical European MEWP fleet mix comprises 50% scissors, 34% booms, 7% vehicle mounted equipment and 9% other equipment.

- Scissors hold the lion’s share of the European MEWP rental market. One trend common to almost all countries is a move towards smaller (3-12m) electric scissors lifts.
- Fleet mix is expected to remain relatively similar in 2018.

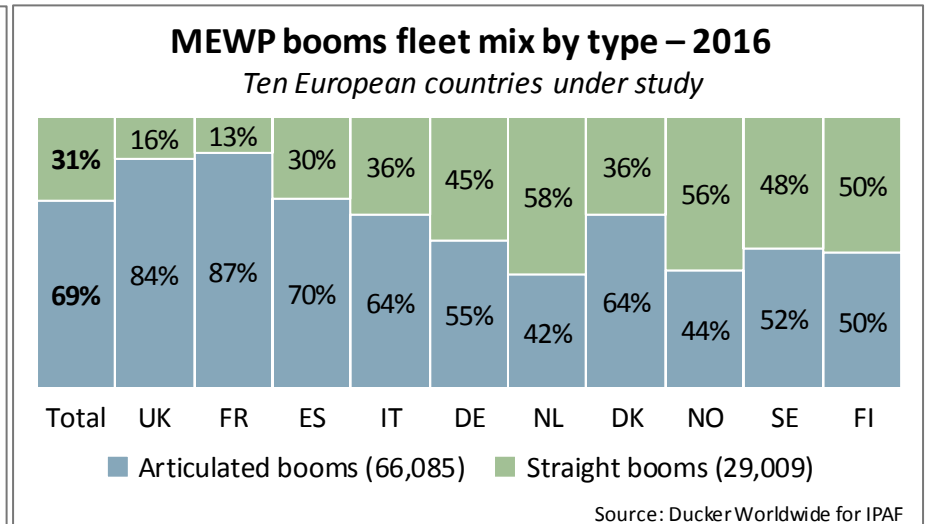
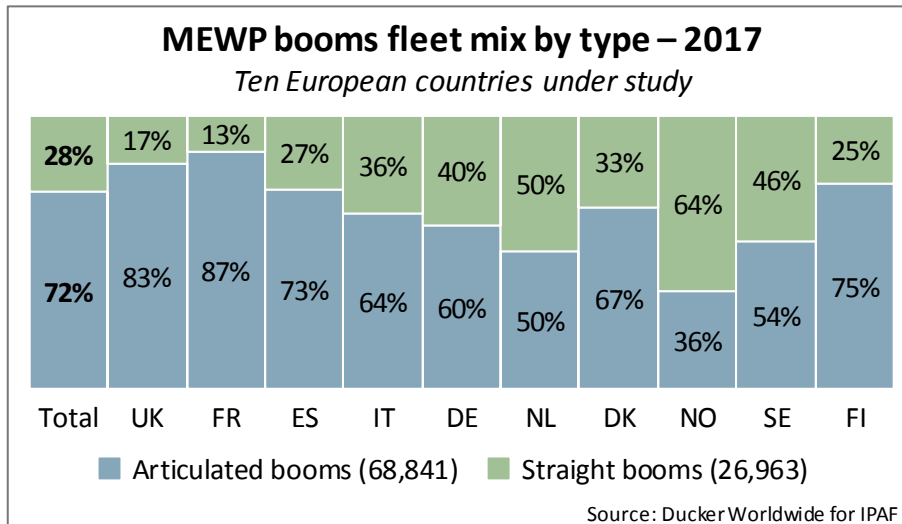


*Note: Included are powered access equipment: all booms, scissor lifts and vertical masts;  
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers;*

+X%      % unit growth, eg booms fleet increased by 1% from 2016 to 2017.  
Others include: Vertical lifts, vertical masts, push-around, trailer mounted/towable.

Similar to the trend identified in last year’s report, articulated booms continued to gain a bigger share of the European boom fleet mix.

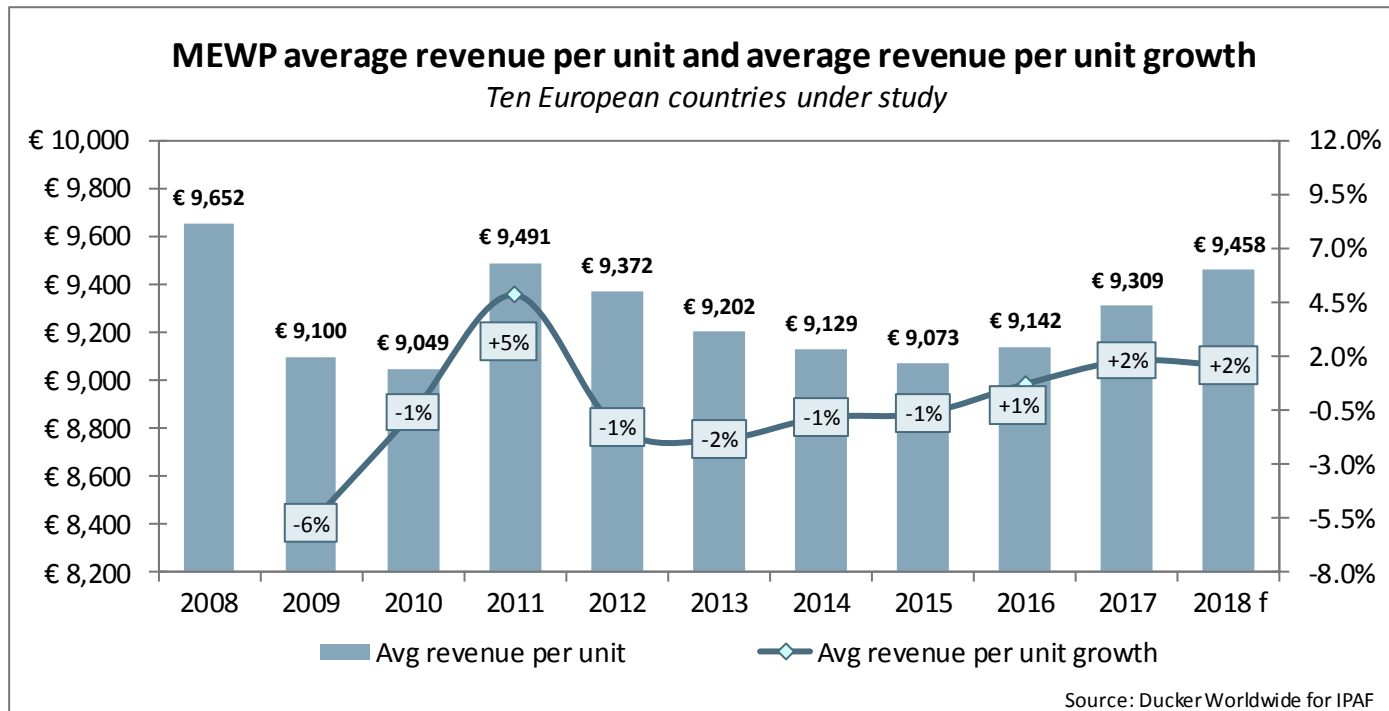
- The share of articulated booms increased in more than half of the European countries under study (Denmark, the Netherlands, Spain, Germany, Sweden and Finland) and changed little in other countries.
- Articulated booms account for more than 75% of the boom fleet in the UK, France and Finland.
- Articulated booms are still seen as a “safe and rationale choice”, since the equipment is highly versatile and able to work in various applications and work environments.



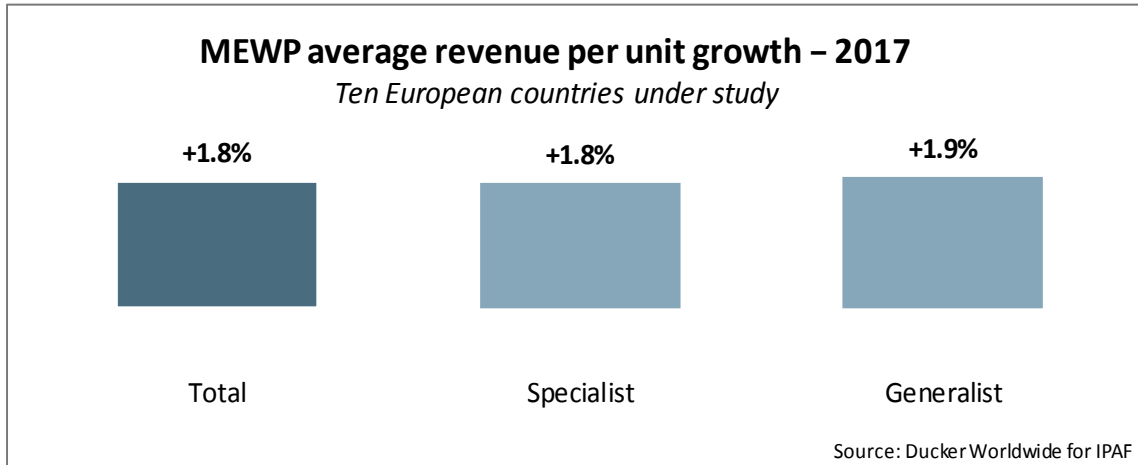
End-of-year data

Average revenue per unit rose at a faster rate in 2017 than in 2016. European MEWP average revenue per unit is now in excess of €9,300, though that is still below pre-recession levels.

- In 2017, the favourable market conditions in most countries under study led rental companies to increase their utilisation and rental rates, driving up revenue per unit.
- A similar trend is expected in 2018 as growth is forecast across all main market indicators.

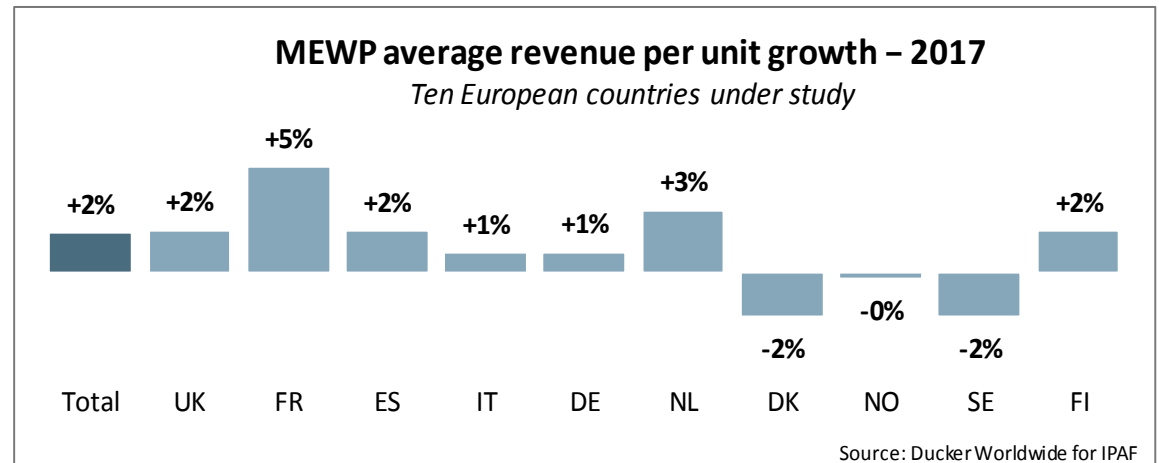


There were marked contrasts when comparing average revenue per unit growth between the ten European countries under study, but little to differentiate when comparing specialist and generalist rental companies.



- The average revenue per unit increased at a similar level for both generalist and specialist companies.

- Average revenue per unit growth differed from one country to the other. While it grew in countries such as France and the Netherlands, it decreased in all the Nordic countries except Finland.



# INVESTMENT 2008 – 2019

## IPAF Powered Access Rental Market Report 2018 – EUROPE

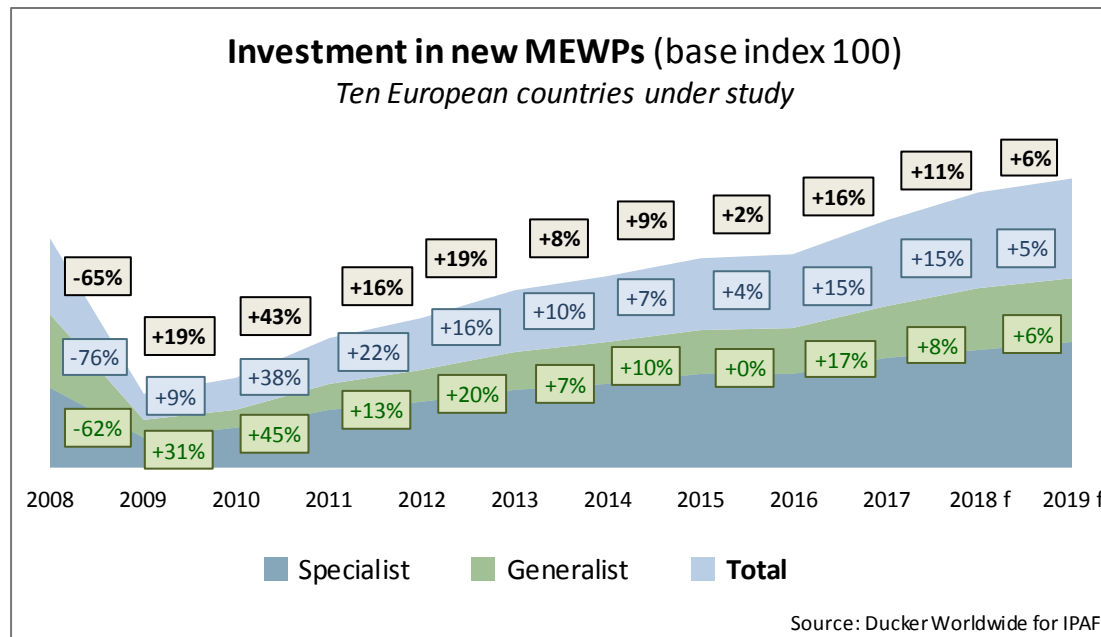
*The International Powered Access Federation*  
[www.ipaf.org/reports](http://www.ipaf.org/reports)



DUCKER WORLDWIDE

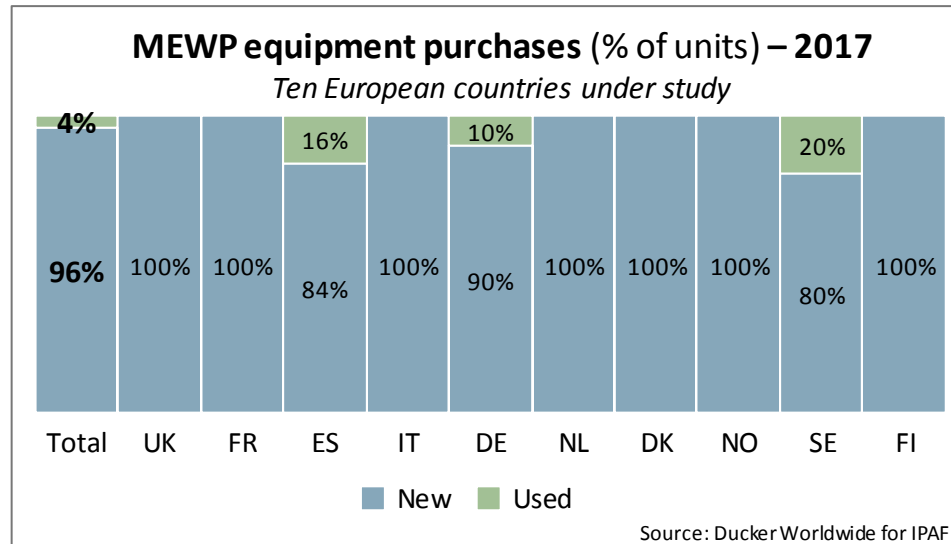
Total investment in equipment purchases increased significantly in 2017, and is expected to grow over the next few years.

- With strong European fleet expansion and a move towards electric, and therefore often expensive machines, rental companies reported an increase in the total invested in new equipment.
- In addition to fleet expansion, a proportion of investment was directed towards fleet renewal.
- Growth in investment was similar for both generalist and specialist companies in 2017.
- Investment is expected to continue to develop as outlook is optimistic and manufacturers report full order books. Companies are investing in new equipment right now so they will avoid having to renew fleet with more expensive equipment as more stringent environmental regulations come into effect.



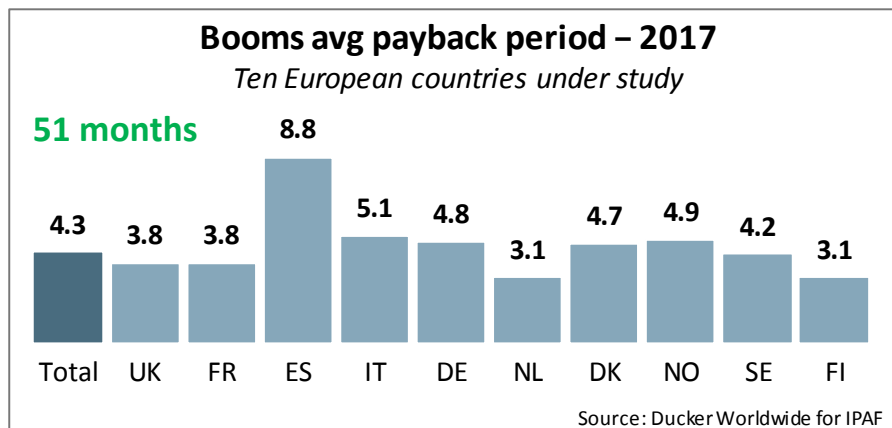
Similar to past years, 96% of equipment purchased by rental companies is purchased new.

- With growing competition in all the European MEWP rental markets under study, an increasing emphasis is placed on maintaining equipment quality in order to maintain competitive edge by offering the most attractive rental fleet possible.
- Used equipment tends to be purchased in limited circumstances: mainly for very short demands or due to extended delivery lead-times from manufacturers, as rental companies often cannot afford to wait for a new machine to be delivered.

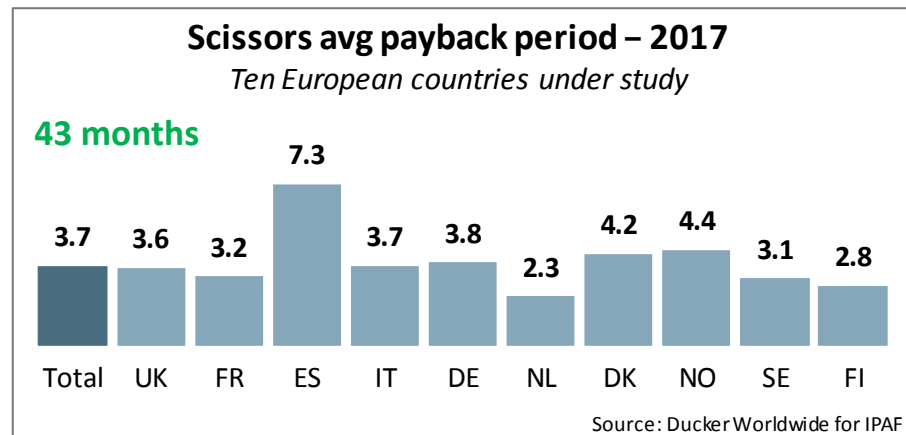


Scissor lifts account for half of the European MEWP rental fleet: It is the most demanded equipment type. In addition, strong demand for electric equipment is behind a shorter payback period for scissors than for booms.

- The average payback period changed little for scissor lifts and increased slightly for booms, rising by around two months.



**4.3 = 4 years, 3 months**



**3.7 = 3 years, 7 months**



# OPERATIONAL ASPECTS 2008 – 2019

## IPAF Powered Access Rental Market Report 2018 – EUROPE

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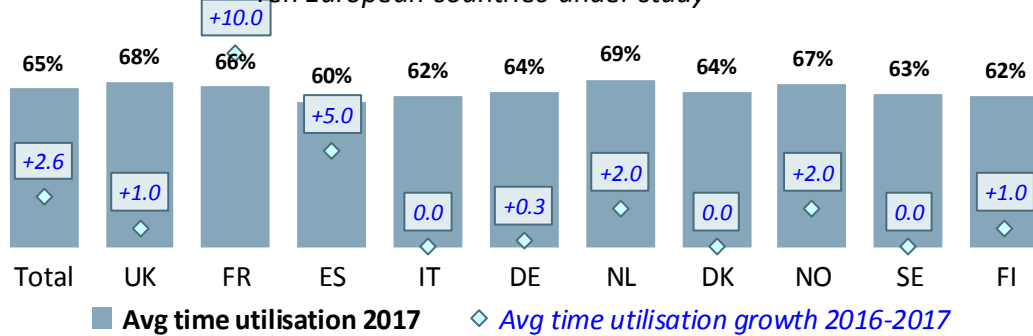


DUCKER WORLDWIDE

MEWP utilisation rates continued to increase across Europe in 2017, reaching an average of 65%.

### MEWP average time utilisation and average time utilisation growth

Ten European countries under study



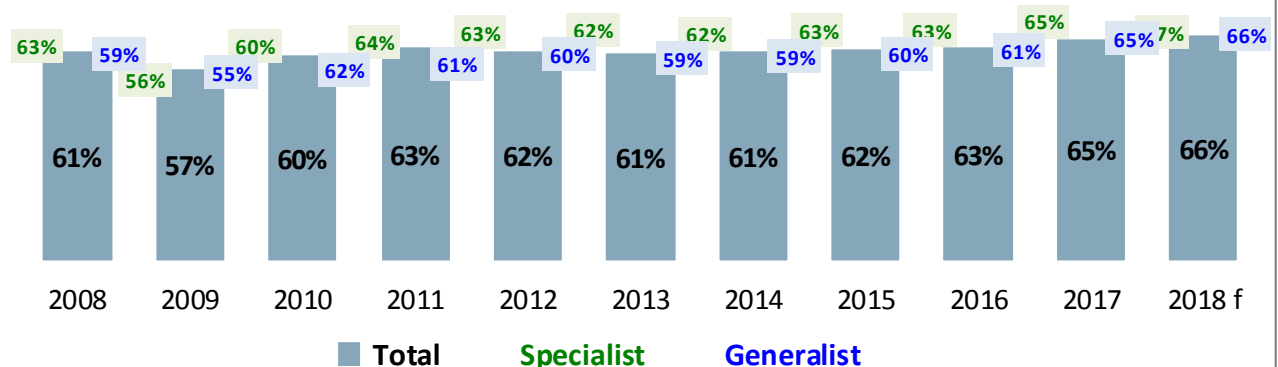
Source: Ducker Worldwide for IPAF

- Utilisation rate rose in various countries under study: The UK, France, Spain, the Netherlands, Norway and Finland.
- In other European countries under study, utilisation rate remained stable while rental companies focused on increasing their fleet size.

- Utilisation rates remain higher for specialist companies than for generalist ones.
- Both categories of companies benefited from increased utilisation rates in 2017.

### Total – Average time utilisation

Ten European countries under study

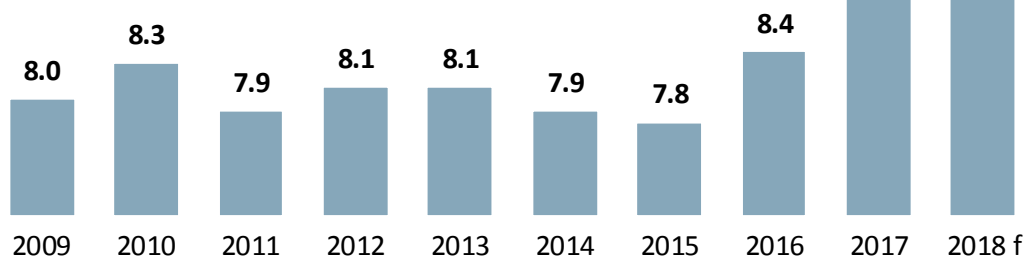


Source: Ducker Worldwide for IPAF

In 2017, the average retention period increased to an average of almost nine years.

## Total – MEWP retention period

Ten European countries under study



Source: Ducker Worldwide for IPAF

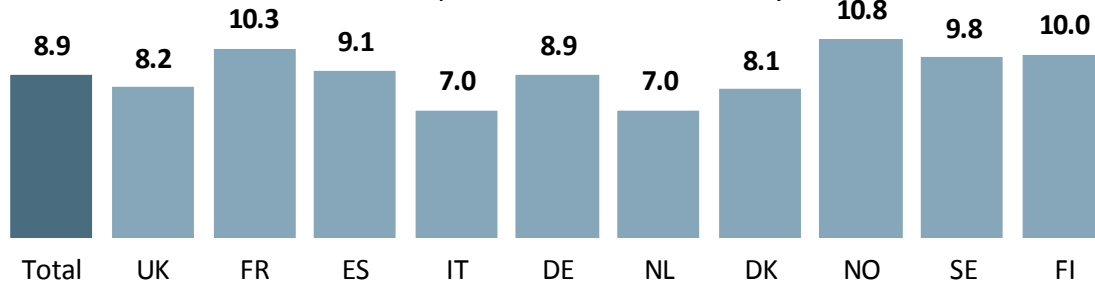
**8.9 = 8 years and 9 months**

- The trend initiated in 2016 towards a longer retention period was pursued in 2017.
- The average retention period increased by an average of five months.

- The average retention period is longest in France and the Nordic countries, where it is slightly more than ten years.
- In other European countries under study, typical retention period is on average less than nine years.

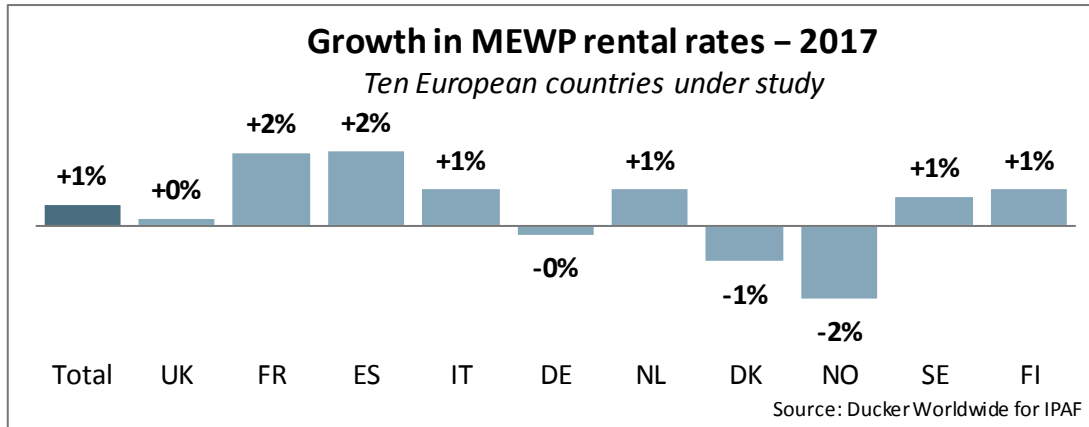
## MEWP retention period – 2017

Ten European countries under study



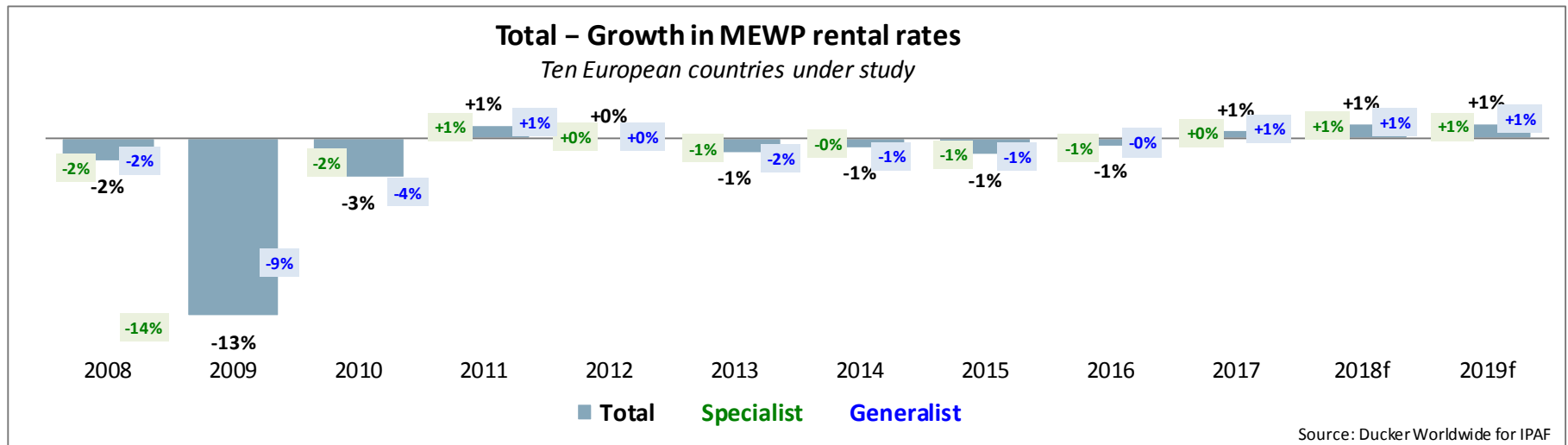
Source: Ducker Worldwide for IPAF

Evolution of rental rates across Europe shows some contrasts: while rates increased significantly in France and Spain, their stagnation in the UK and Germany, or even decrease in Denmark and Norway, highlight the current competitive pressure happening on those markets



- Several countries, such as France, Spain, Italy, the Netherlands, Sweden and Finland, benefitted from the favourable market conditions and increased their rental rates.
- Rental rates fell in some countries in 2017, particularly Denmark and Norway.
- Rental rates remained flat and under pressure in larger European markets such as the UK and Germany, owing mainly to strong market competition.

- In 2017, generalist companies managed to increase their rental rates more significantly than specialist companies.



# A PERSPECTIVE FROM THE MANAGING EDITOR OF *INTERNATIONAL RENTAL NEWS* IPAF Powered Access Rental Market Report 2018 – Europe

*The International Powered Access Federation*  
[www.ipaf.org/reports](http://www.ipaf.org/reports)



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- There is plenty to be positive about when you look at the rental environment in Europe. The big MEWP manufacturers are reporting a recovery in sales to European renters; markets that have been in the doldrums to varying degrees are recovering, notably Spain, France and Italy; and the region is seeing an almost unparalleled period of mergers and acquisitions as the major players follow their expansion strategies.
- Alongside that, European rental companies are becoming increasingly innovative as they seek to differentiate themselves and make the transition to the digital economy. There is more investment in telematics, online rental portals (including entirely new businesses, such as Avesco's Fast Rent in Switzerland), as well as smartphone apps designed to make life easier for customers.
- That innovation is not all focused on IT, with Riwal, for example, developing electric-powered versions of several JLG booms, while others, such as Naboen in Norway, Wemo-tec in Germany and Hoogwerkt in the Netherlands investing in low or zero-emission machines.
- The positive rental environment relates to wider economic recovery and that backdrop has seen sales of construction equipment in Europe (excluding MEWPs) increase by 13% last year, according to Off-Highway Research. Indeed, sales in Germany surpassed those of the 2007-08 peak, and were exceeded only by the record levels in the early 1990s following reunification. Off-Highway is forecasting similar sales levels for Europe in both 2018 and 2019.
- For aerial platforms, however, it has always been more than just about the economic picture or the strength of the construction market, crucial though these are. That's because MEWPs have an almost unrivalled position in the rental market, combining characteristics that make them both a hugely versatile tool and the perfect rental product.

- That role was never more evident than last year, with many significant mergers and acquisitions involving companies that specialise in access, including Lavendon, Hune, Kimberly, Nacanco, Cofiloc, Gardemann and others. Aerial specialists are often the number one targets for the biggest rental players.
- MEWPs therefore find themselves at the cutting edge of the consolidation of Europe's rental market, a trend that is creating rental fleets that are starting to match in scale the biggest US fleets. Loxam's 45,000 unit access fleet is still a long way from the 120,000 lifts owned by United Rentals, but it's getting there.
- It also begs the perennial question of the future of powered access rental specialists. If 2017 is anything to go by, it would seem the days of the large specialists are numbered. That hasn't happened yet, and the success of Riwal and TVH, among others, shows that retaining a product focus can still bring benefits and be a powerful driver of growth.
- Challenges remain, of course. For every rental company energised by digital opportunities, others are scared of losing ground. There is the uncertainty surrounding Brexit and, unrelated, the rise of the giant pan-European renters adds competition and won't please everyone.
- Whatever the future holds, access rental companies find themselves in a good market environment, with economies largely moving in the right direction, new digital technologies giving them the opportunity to innovate, and electric and hybrid products widening the market for platforms. There is plenty to be positive about.

# MARKET TRENDS AND DRIVERS

## IPAF Powered Access Rental Market Report 2018 – EUROPE

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Safety remains the primary concern in the MEWP rental sector, but another main trend identified in 2017 was a move towards greener, ie electric and hybrid equipment. Scissor lifts are predominantly electric though electric and hybrid machines are gaining ground in boom fleets.

## Greener equipment

- Most rental companies confirm a move towards “greener” equipment, such as electric and hybrid machines, allowing them to serve a rising customer demand for cleaner machines and to comply with new and upcoming ultra-low-emissions regulations.
- All rental companies are now investing in these technologies.
  - Electric power sources are predominant among "green" MEWPs currently
  - A number of rental companies have started investing in hybrid machines as well, despite their currently being typically up to a third more expensive than equivalent internal-combustion-powered machines.

## Safety as key MEWP market driver

- Safety is the key driver behind increased use of MEWPs. MEWPs are increasingly being selected in preference to scaffolding and ladders for temporary work at height.
- Rental companies are universally intent on delivering well-maintained equipment, which maximises safety and reliability when on-hire with clients.
- The amount of operator and manager training being delivered in Europe is increasing each year.

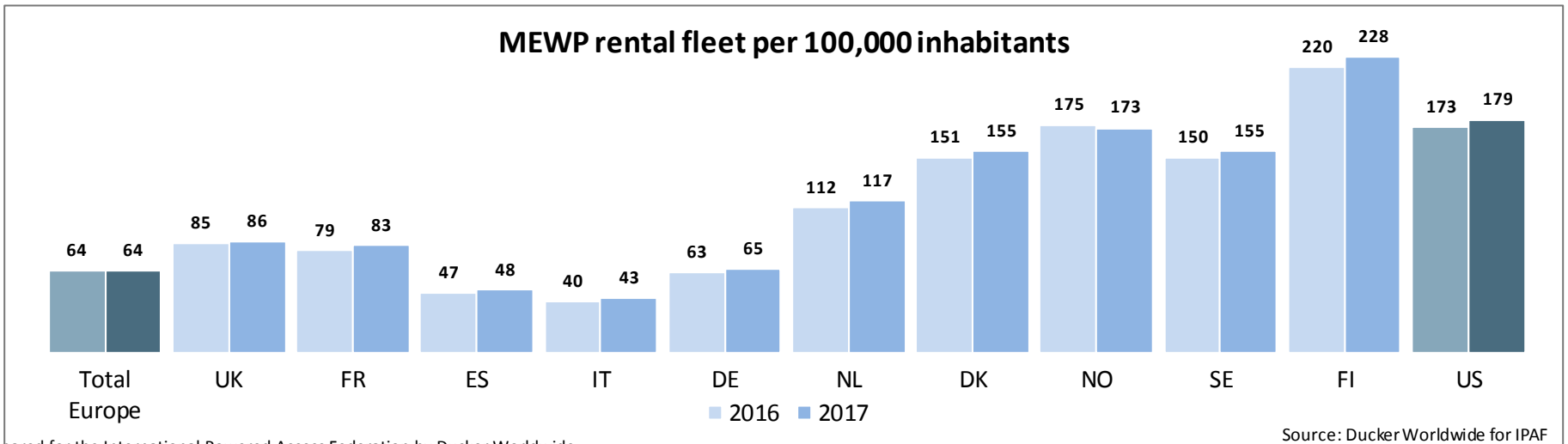
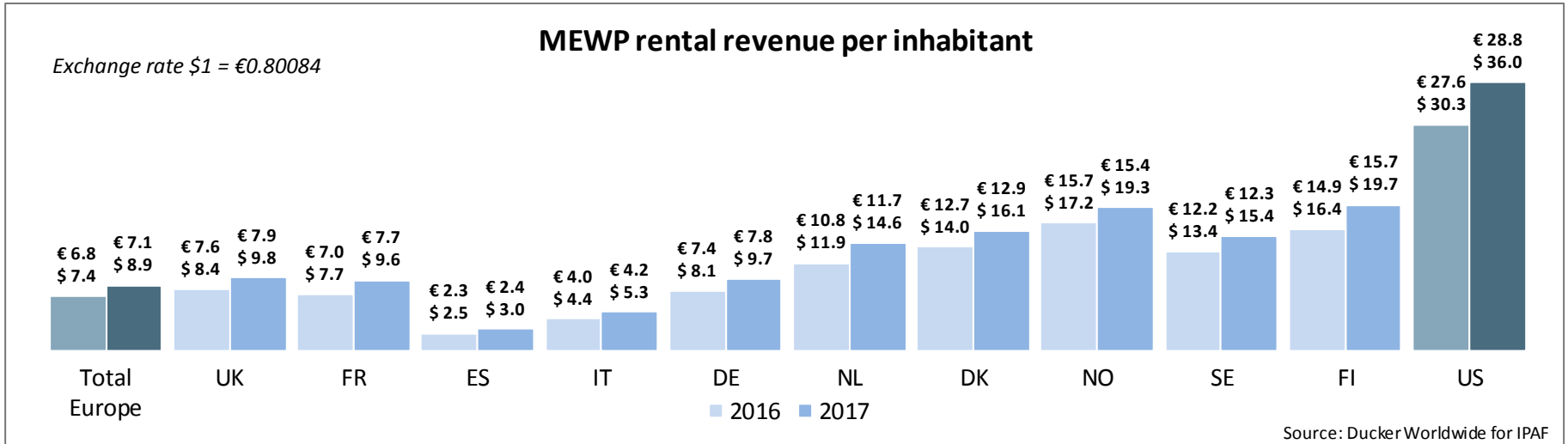
## Market consolidation

- The market consolidation trend is continuing in Europe: a number of acquisitions happened in all European countries under study (the UK, France, Germany, Italy, Spain, etc...) in 2017.
- Rental companies anticipate that consolidation will continue as the market becomes more competitive.

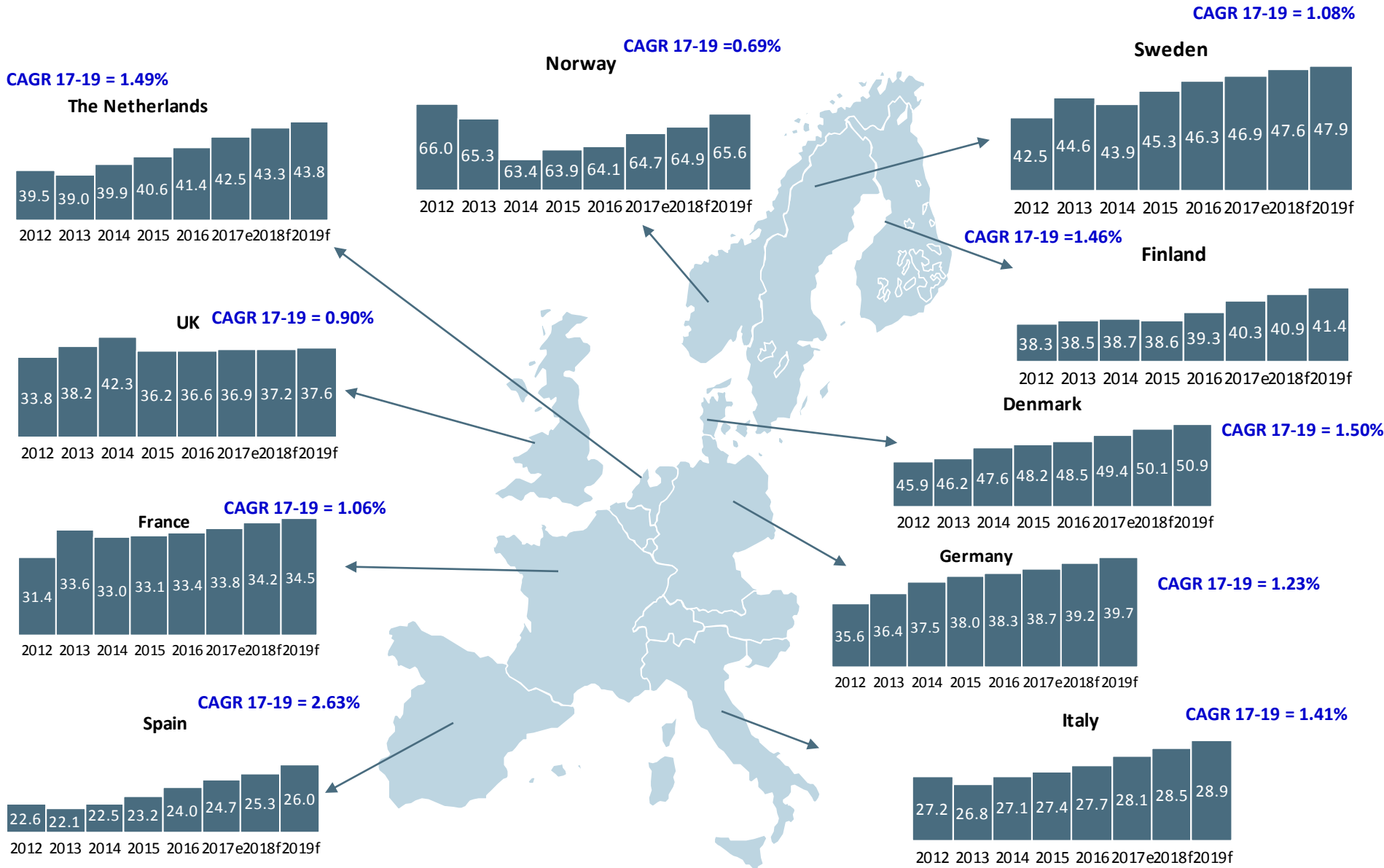
## Use of tracking devices

- Rental companies report that the use of tracking technology is likely to increase in the next few years.
  - Security, preventing unauthorised use and real-time usage data are benefits that all rental companies can use to manage their fleets more efficiently via telematics.
  - Tracking technology also allows end-users to check if they are using the equipment efficiently and secure it against unauthorised use or use in restricted locations on site.

MEWP rental revenue per inhabitant and MEWP rental fleet size per 100,000 inhabitants

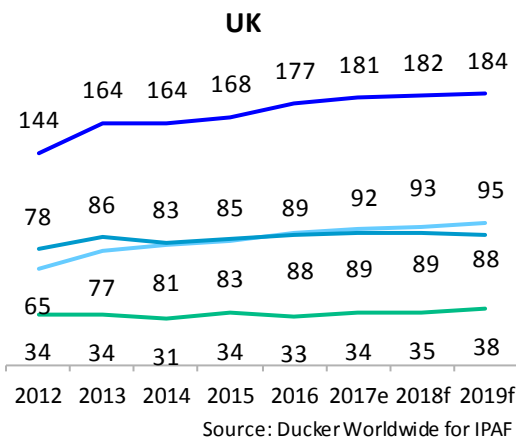


# MARKET TRENDS AND DRIVERS – GDP PER CAPITA

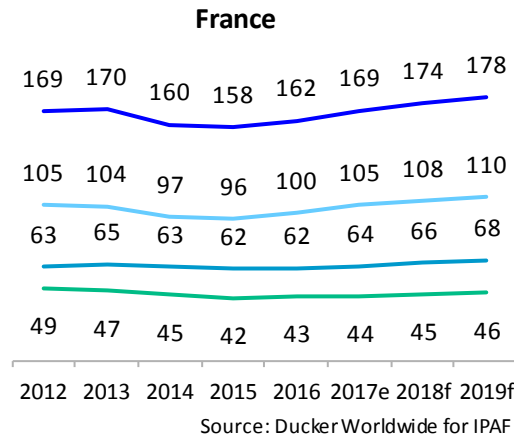


Similarly to last year, the UK and German construction markets are experiencing limited growth, while the French construction sector shows good signs of dynamism and solid growth.

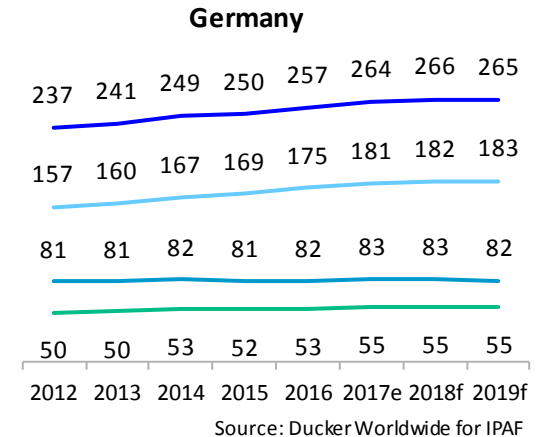
**Compound Annual Growth Rate (CAGR) 17-19 = 0.67%**



**Compound Annual Growth Rate (CAGR) 17-19 = 2.63%**



**Compound Annual Growth Rate (CAGR) 17-19 = 0.29%**



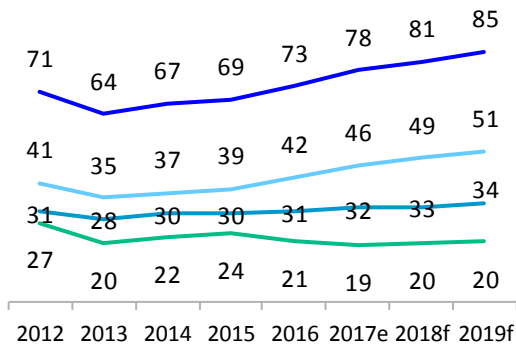
Construction put in place in billion Euros based on Euroconstruct 2017.

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering

Of the countries under study, Spain and the Netherlands experience the fastest growth in construction. Outlooks are also positive for Italy.

**Compound Annual Growth Rate (CAGR) 17-19 = 4.01%**

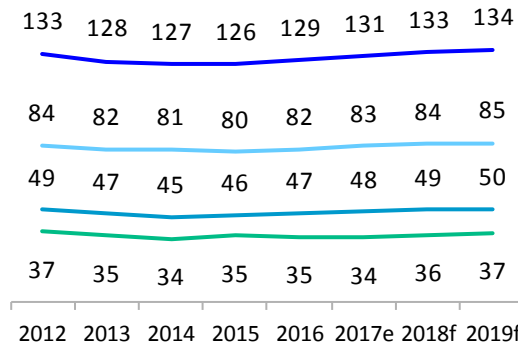
**Spain**



Source: Ducker Worldwide for IPAF

**Compound Annual Growth Rate (CAGR) 17-19 = 1.36%**

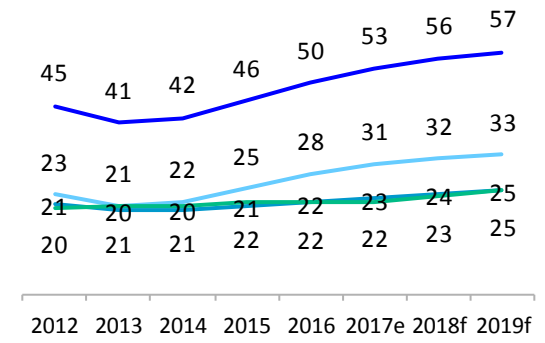
**Italy**



Source: Ducker Worldwide for IPAF

**Compound Annual Growth Rate (CAGR) 17-19 = 3.75%**

**The Netherlands**



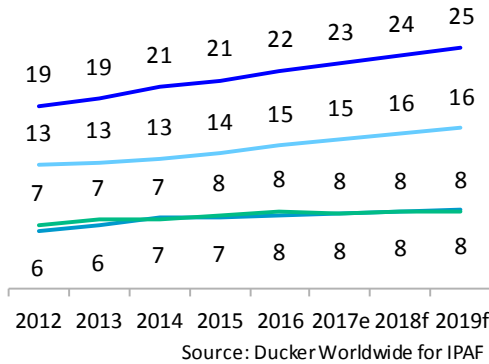
Source: Ducker Worldwide for IPAF

Construction put in place in billion Euros based on Euroconstruct 2017.

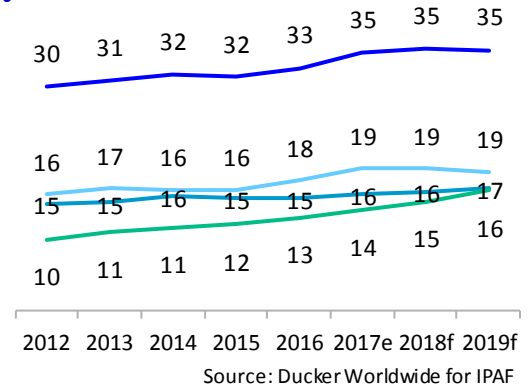
- Residential construction
- Non-residential construction
- Total construction
- Civil engineering

Construction markets in the Nordic countries evolve at various paces. While Denmark leads the growth, Norway and Sweden experience a relatively slow increase. Construction in Finland is expected to start decreasing again in 2019.

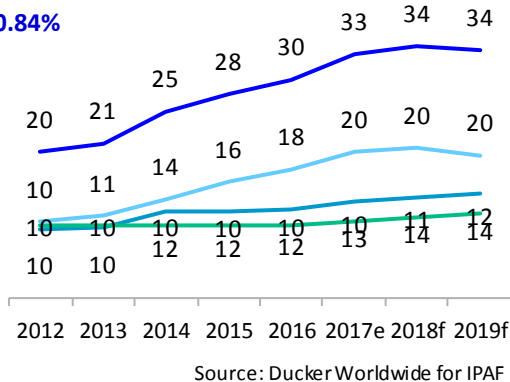
**Compound Annual Growth Rate (CAGR) 17-19 = 3.41%** Denmark



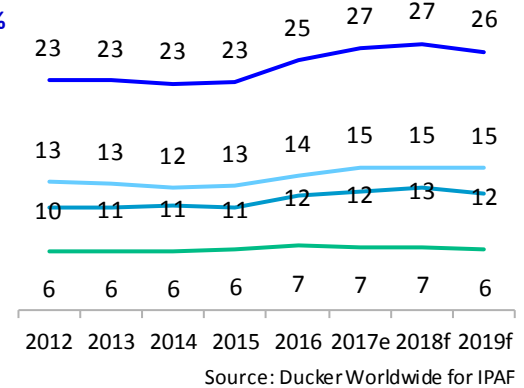
**Compound Annual Growth Rate (CAGR) 17-19 = 0.47%** Norway



**Compound Annual Growth Rate (CAGR) 17-19 = 0.84%** Sweden



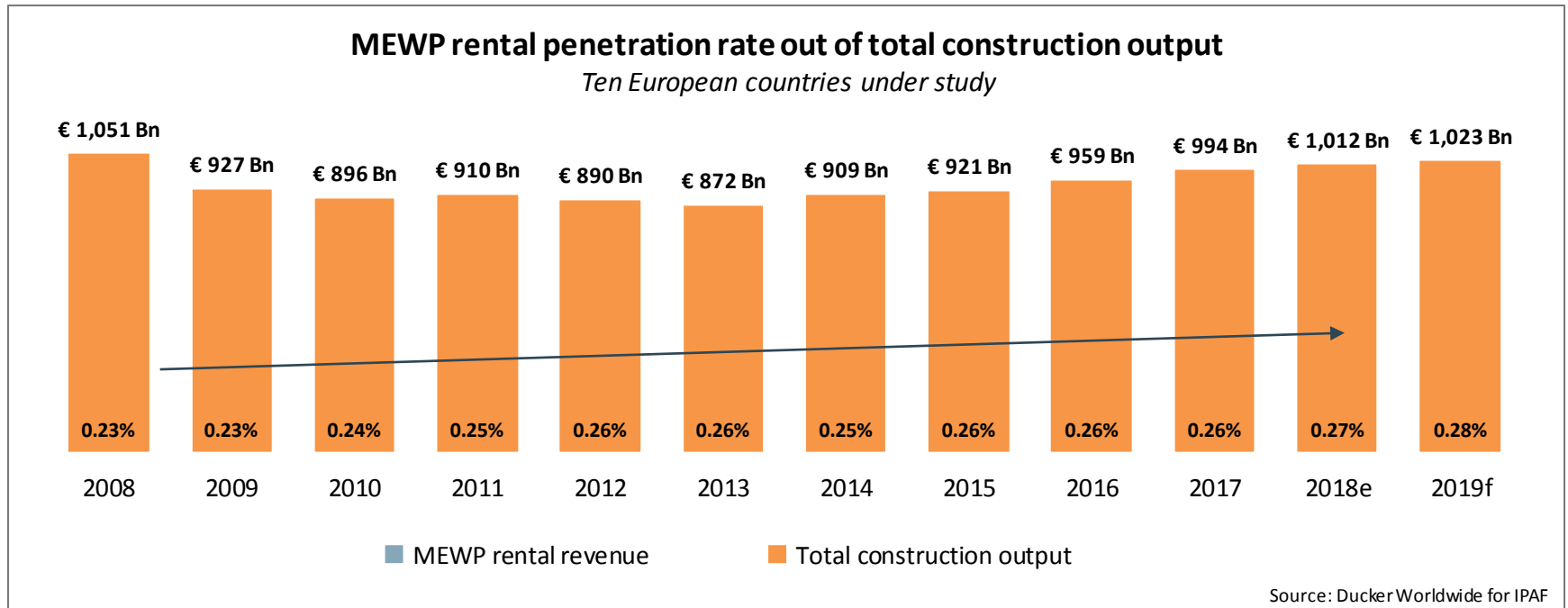
**Compound Annual Growth Rate (CAGR) 17-19 = -0.57%** Finland



Construction put in place in billion Euros based on Euroconstruct 2017.

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering

European MEWP rental revenue as a proportion of the total construction market value is increasing incrementally each year.



*Construction put in place in billion Euros based on Euroconstruct 2017.*

# APPENDIX TO EUROPE

## IPAF Powered Access Rental Market Report 2018 – EUROPE

*The International Powered Access Federation*

*[www.ipaf.org/reports](http://www.ipaf.org/reports)*



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## Ten countries under study

Ten countries under study

- France
- Germany
- Italy
- Netherlands
- Nordic region (DK, NO,SE, FI)
- Spain
- UK

Total European market

- Austria
- Belgium
- Bosnia
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Estonia
- Greece
- Hungary
- Ireland
- Latvia
- Lithuania
- Luxembourg
- Macedonia
- Malta
- Poland
- Portugal
- Romania
- Slovak Republic
- Slovenia
- Switzerland

# NORTH AMERICA (USA + Canada) INFORMATION

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## IPAF Powered Access Rental Market Report 2018

*The International Powered Access Federation*  
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# MARKET SIZE AND DYNAMICS 2008 – 2019

## IPAF Powered Access Rental Market Report 2018 – USA

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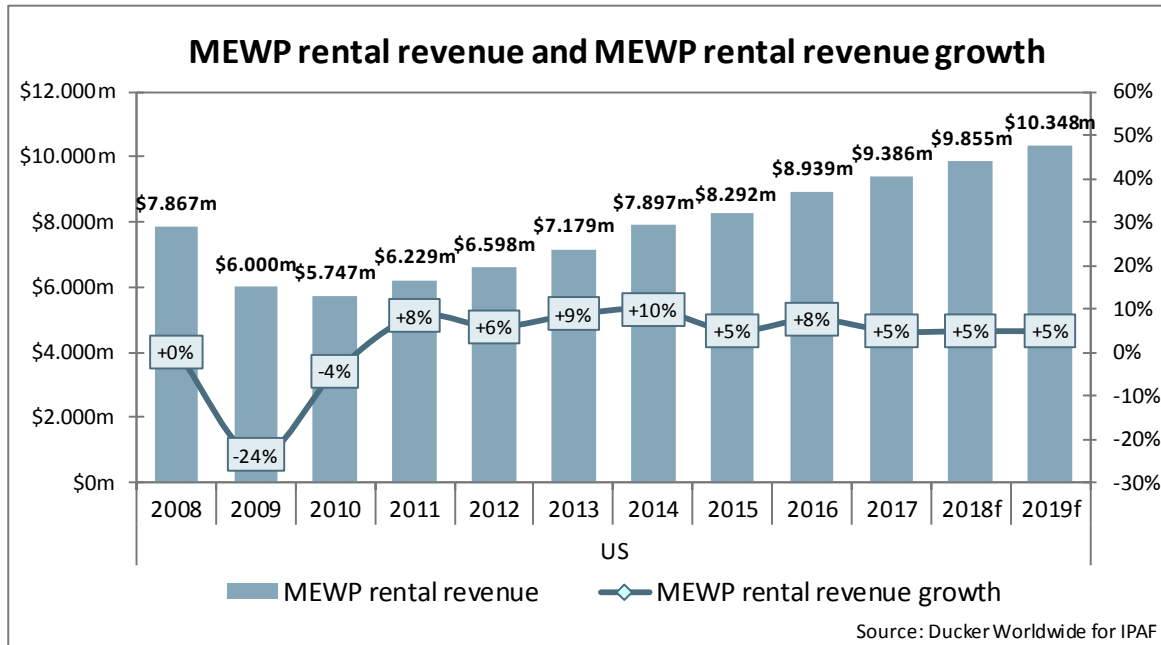


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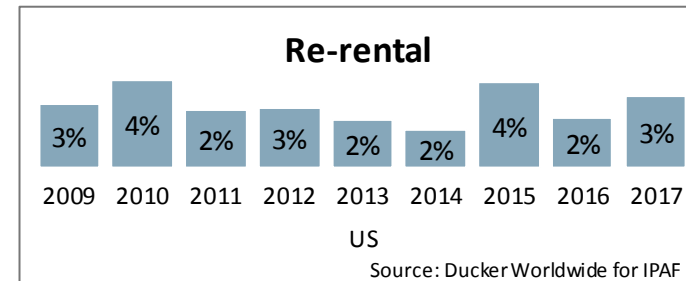
## MARKET SIZE & DYNAMICS – MARKET VALUE GROWTH

In the US, revenue from MEWP rental activity grew by 5% in 2017, primarily driven by fleet expansion and an increase in construction projects. The growth is expected to remain consistent until 2019, and companies are opting for more sustainable growth in order to avoid repeating past mistakes deriving from rapid over-expansion during boom periods.

- Many US rental companies said they were currently investing in expanding their business as a Republican administration is in power.
- New construction projects and post natural disaster reconstruction works are providing lucrative opportunities.
- However, with the economic crisis still fresh in people’s minds, companies are opting for more gradual/rational growth, rather than pursuing exponential/rapid growth.
- Companies are adopting a more conservative approach towards expanding their business, despite the positive market outlook.



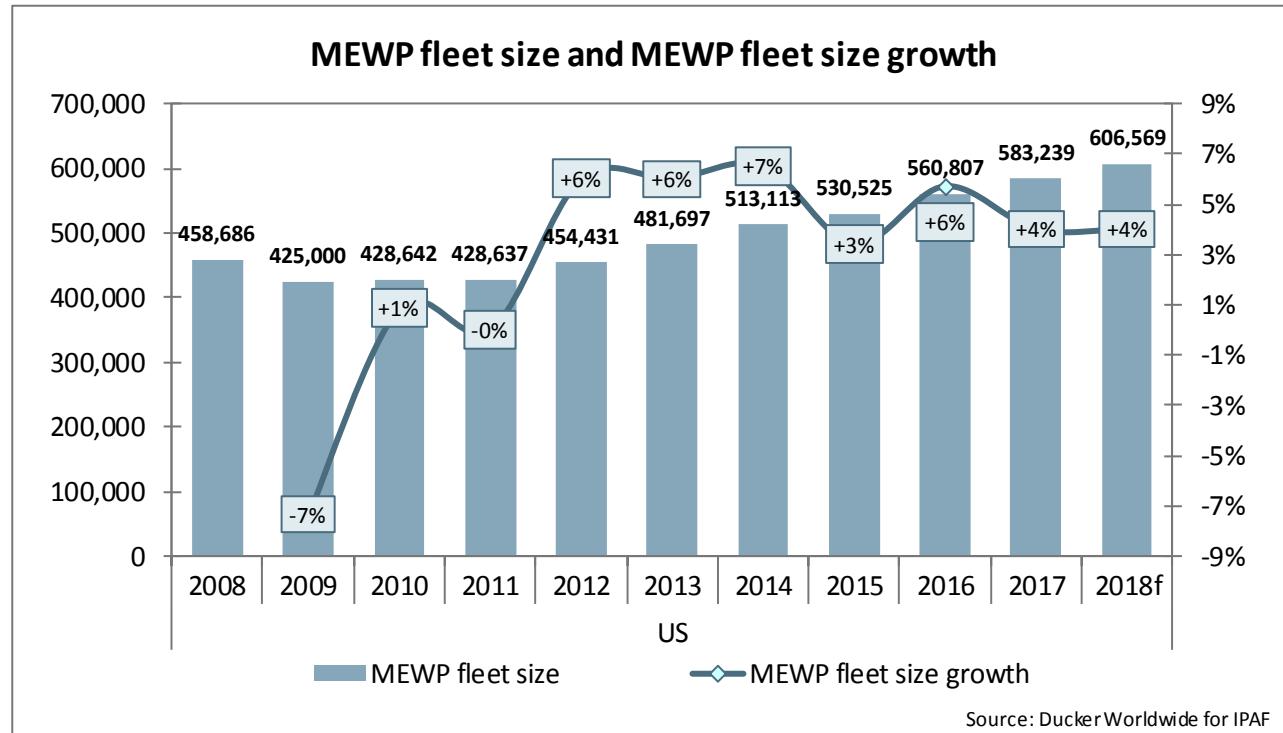
Re-rental, ie cross-hire, decreased by 2% and represented around 2%, this level was also typical for the US market in the years 2013-2014.



End-of-year data

Fleet growth has slowed down in 2017. However, the 4% growth rate is expected to remain consistent throughout 2018. The total size of MEWP fleet in 2017 was 583,239 and is expected to exceed 606,000 units by the end of 2018.

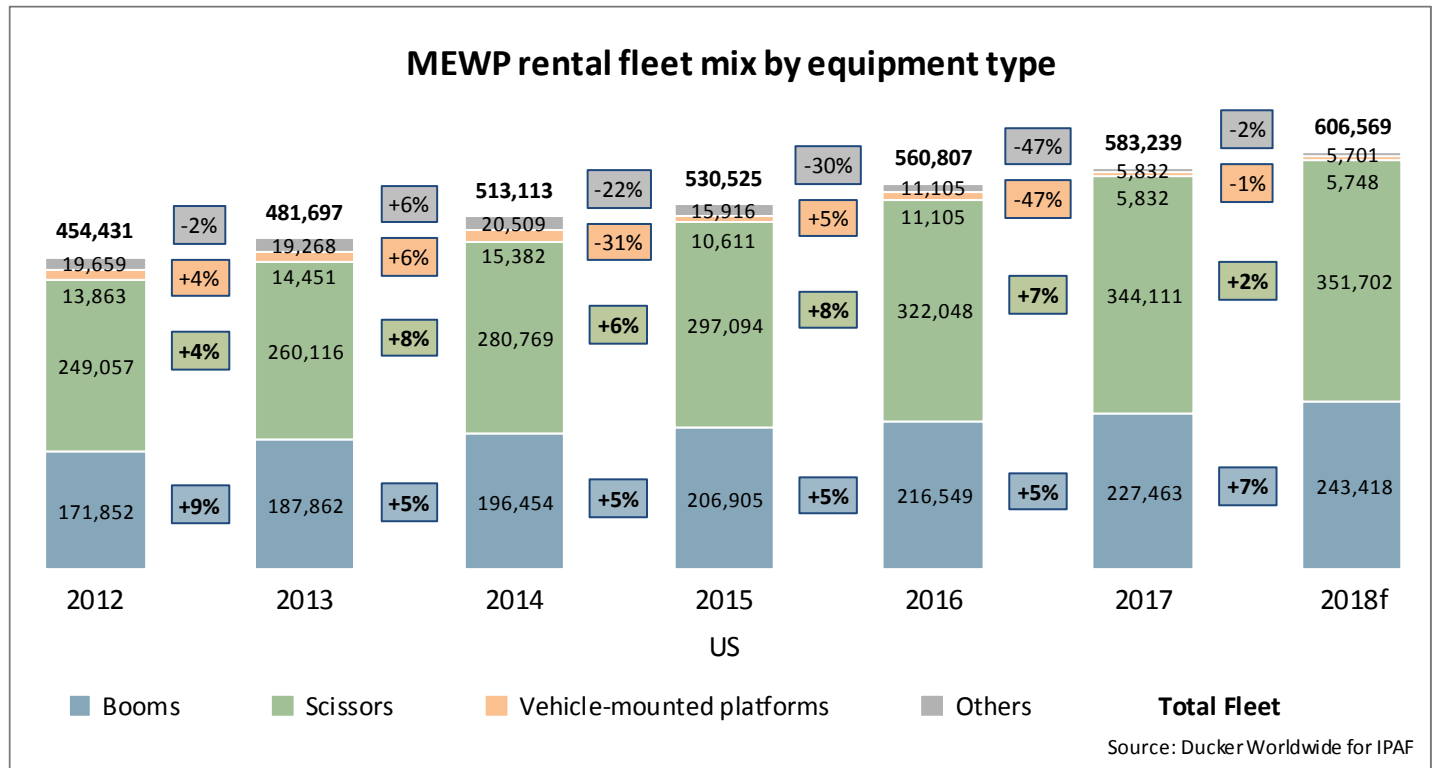
- As buildings get taller, the demand for bigger booms is expected to increase.
- In light of most companies pursuing sustainable growth strategies, the industry outlook is for consistent expansion of fleet size in 2017, 2018 and beyond. It is also possible rental companies are holding off investment in new MEWPs until the final ANSI standards update is published, to ensure new equipment will be compliant with requirements for tilt and overload sensing.
- Fleet size expansion has been relatively conservative, most likely to indemnify rental companies against any significant future fall in demand.



*Note: Included are powered access: all booms, scissor lifts and vertical masts;  
Excluded: Low-level access equipment (<10ft high), telescopic material handlers, forklifts, cranes, mast climbers;*

The number of scissor lifts in the US continues to increase at a slightly higher rate than the number of booms. The overall ratio between scissors and booms has historically been at roughly 60:40 in favour of scissors, and that hasn't changed.

- Scissors typically have a better return on investment and can be used for a variety of applications.
- In addition, scissors are popular as they can more easily be used in both indoor and outdoor applications.



*Note: Included are powered access: all booms, scissor lifts and vertical masts;  
Excluded: Low-level access equipment (<10ft high), telescopic material handlers, forklifts, cranes, mast climbers;*

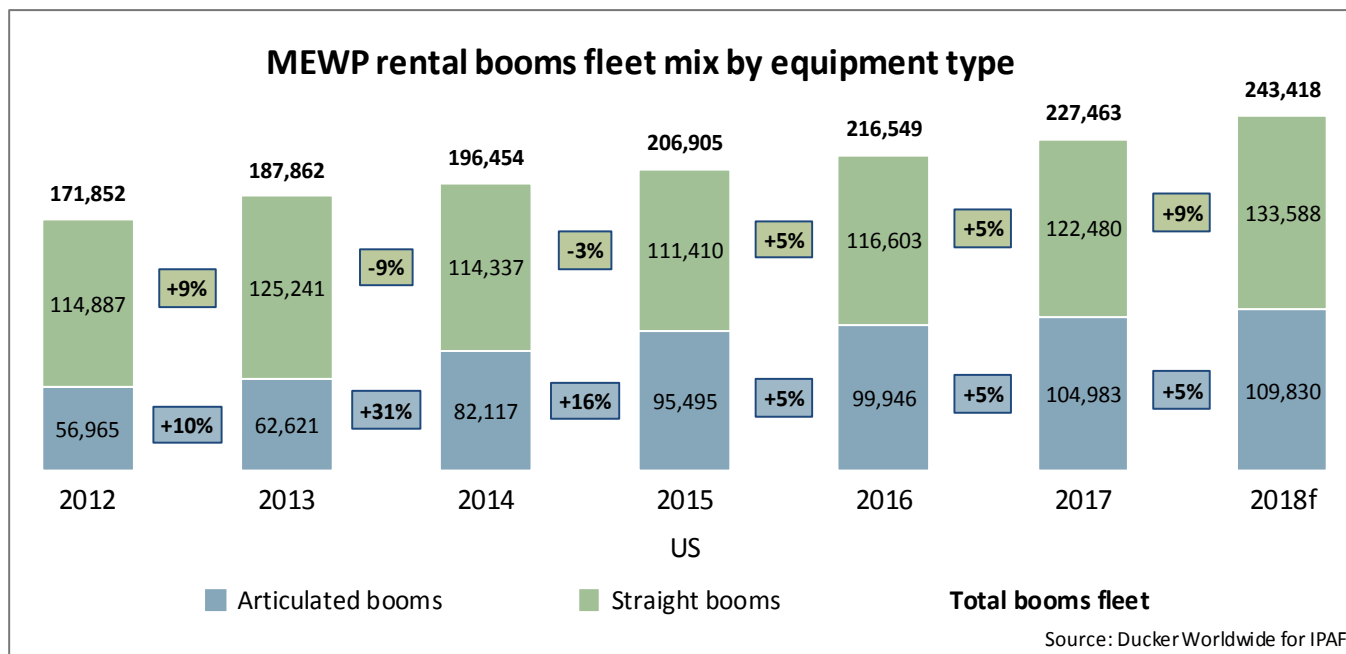
+X%

**% unit growth, eg boom fleet increased by 5% from 2016 to 2017**

*Other includes vertical lifts, vertical masts.*

Straight booms continue to dominate the US market. Both straight and articulated booms experienced similar fleet size growth in 2017.

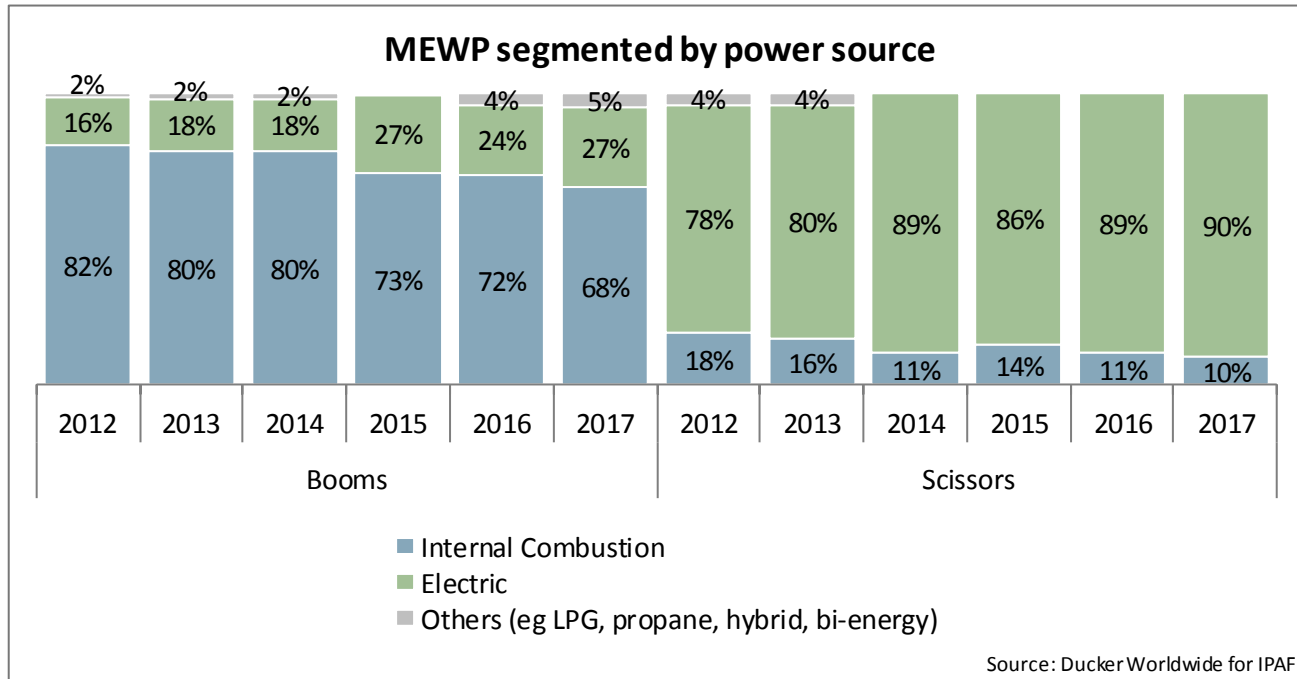
- The initial investment in straight booms is lower as compared to articulated ones.
- In addition, the available working space is a lower constraint than in Europe and straight booms are well suited for multiple construction applications.



*End of the year data*

The majority of scissor lifts in the US are electric powered while the majority of booms are powered by internal combustion. However, electric and hybrid power is becoming increasingly prevalent in both scissors and booms.

- The switch towards electric power sources is expected to increase further, driven by environmental constraints.
- Scissors are traditionally more likely to be electric powered owing to the fact that they are predominantly designed for indoor applications.

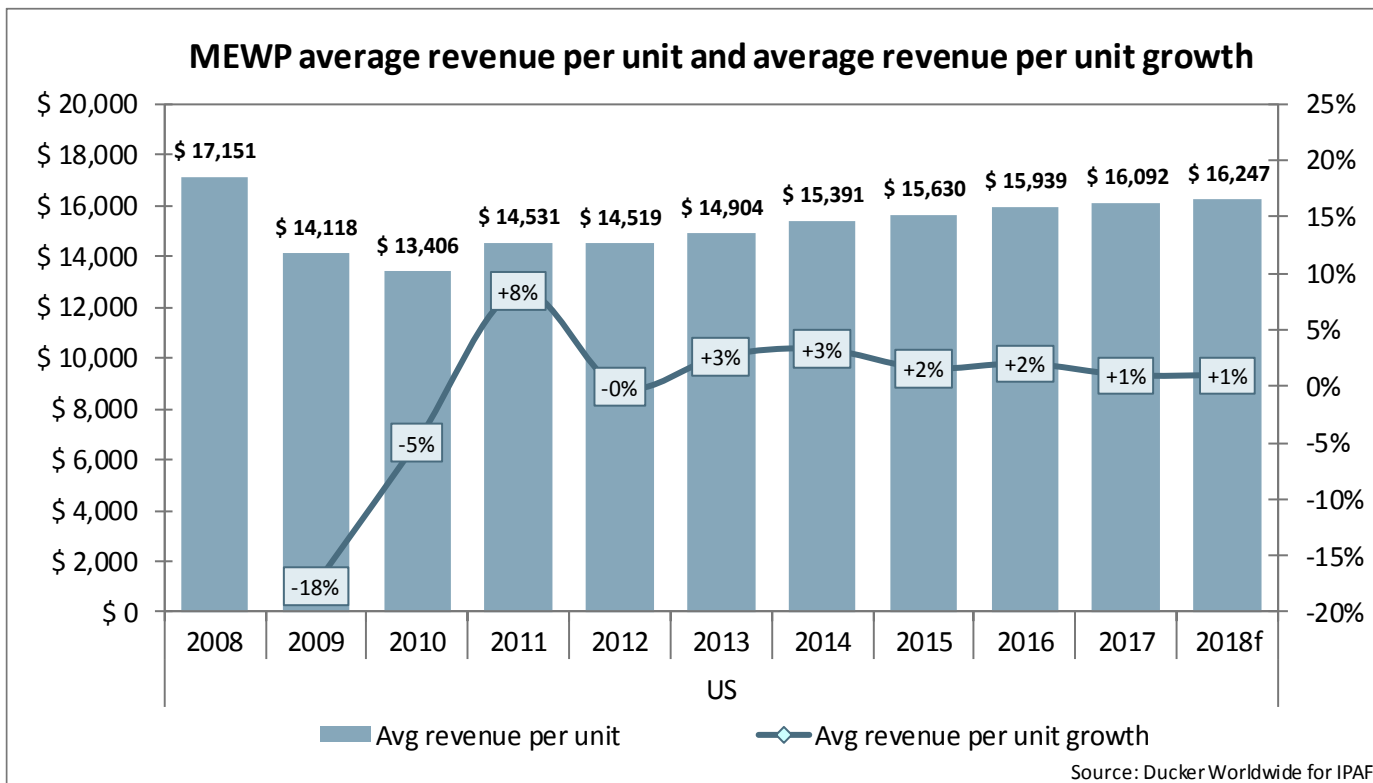


*Percentage of fleet powered by electric vs diesel engine.*



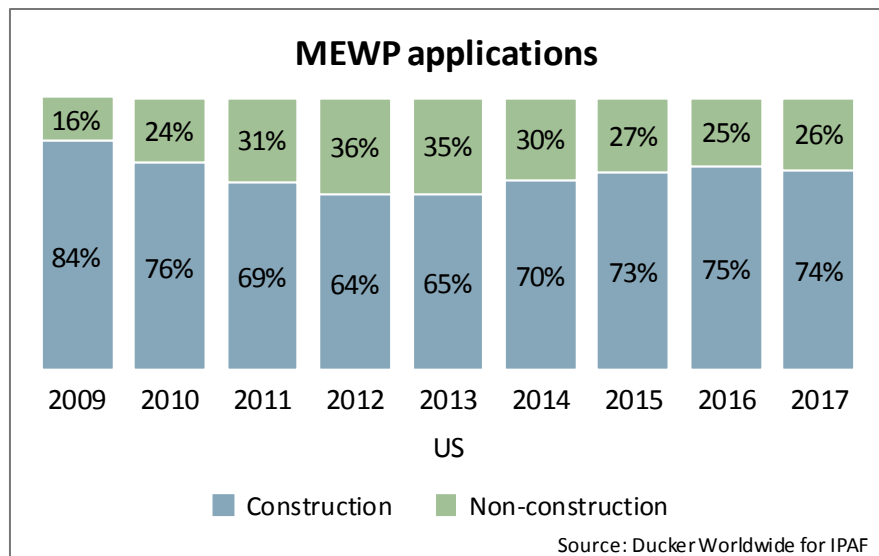
Average revenue per unit grew by 1% in 2017 and is projected to grow at the same rate in 2018. This growth is mainly linked to improved rental rates and a slight increase in the utilisation rate.

- Average revenue per unit growth has remained more or less consistent over the past four years. This trend is expected to continue in coming years.



In 2017, the construction sector accounted for almost three quarters of total MEWP rental, confirming the dominance of the sector in terms of MEWP end uses.

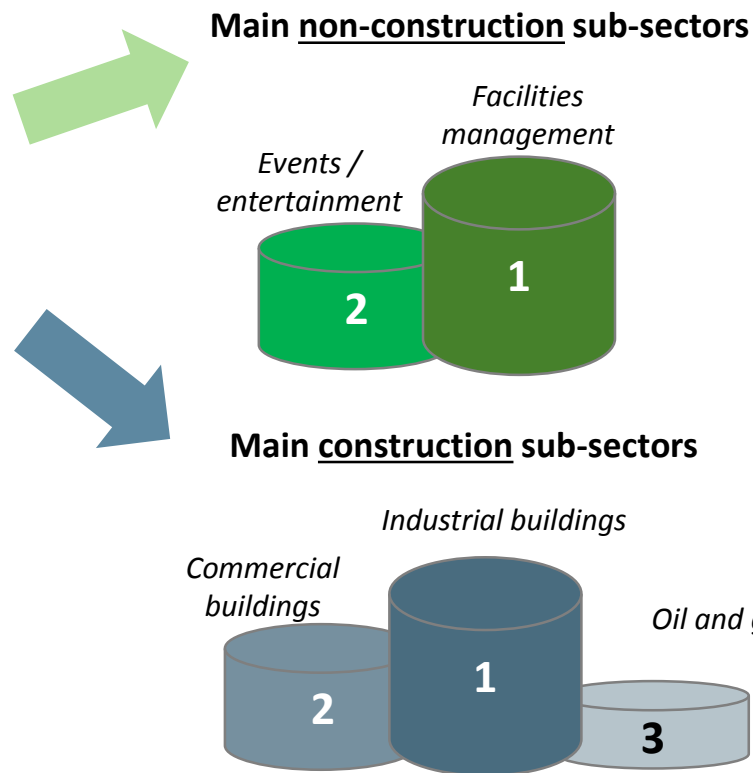
- The US MEWP rental market is traditionally heavily oriented towards the construction sector.
- As in 2016, facilities management dominates in terms of non-construction uses.



Share of rental revenues

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

Construction includes new build and renovation; including all types of buildings, also industrial.



# INVESTMENT 2008 – 2019

## IPAF Powered Access Rental Market Report 2018 – USA

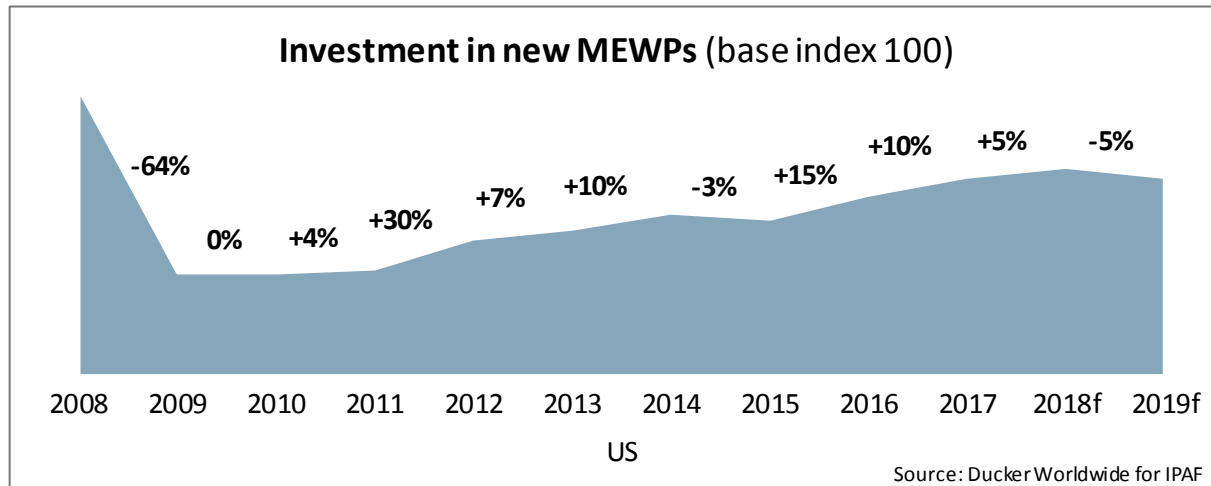
*The International Powered Access Federation*  
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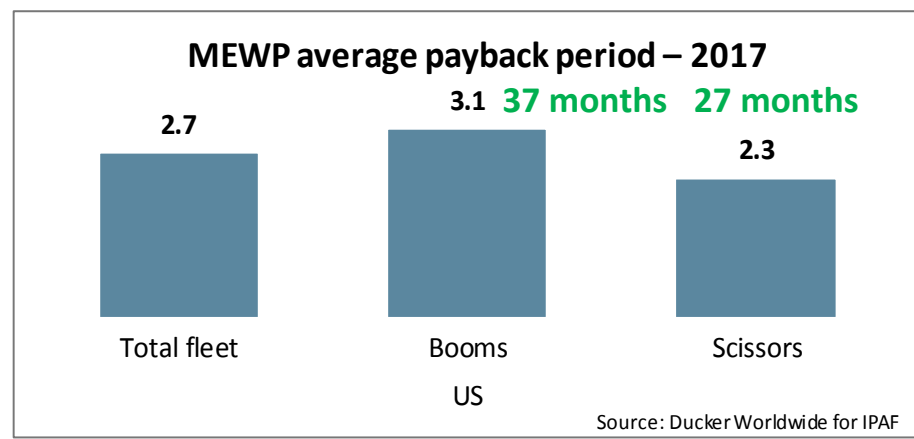
Investment in new MEWPs grew by 10% in 2017 as compared to 15% the previous year. This was largely down to fleet replacement and expansion.

- The typical natural life cycle of fleets and favourable government policies contributed to an investment growth rate of 10% in 2017.
- It was also reported that future regulations and new standards were expected to increase the cost of new machines so many rental companies had planned this into their investment strategy.
- Investment was expected to decline after 2018, with many rental companies maintaining a cautious attitude towards future fleet expansion, and/or intending to reduce investment from 2019 onwards.



Traditionally, booms have had a longer payback period than scissiors. This trend is expected to continue in the near future as well.

- The higher utilisation of the US fleet combined with increasing rental rates allowed for a reduced payback period.
- A combination of using articulated booms and electric scissiors, provides a better payback period for US firms as compared to their European counterparts.



*2.7 = 2 years and 7 months*

# OPERATIONAL ASPECTS 2008 – 2018

## IPAF Powered Access Rental Market Report 2018 – USA

*The International Powered Access Federation*

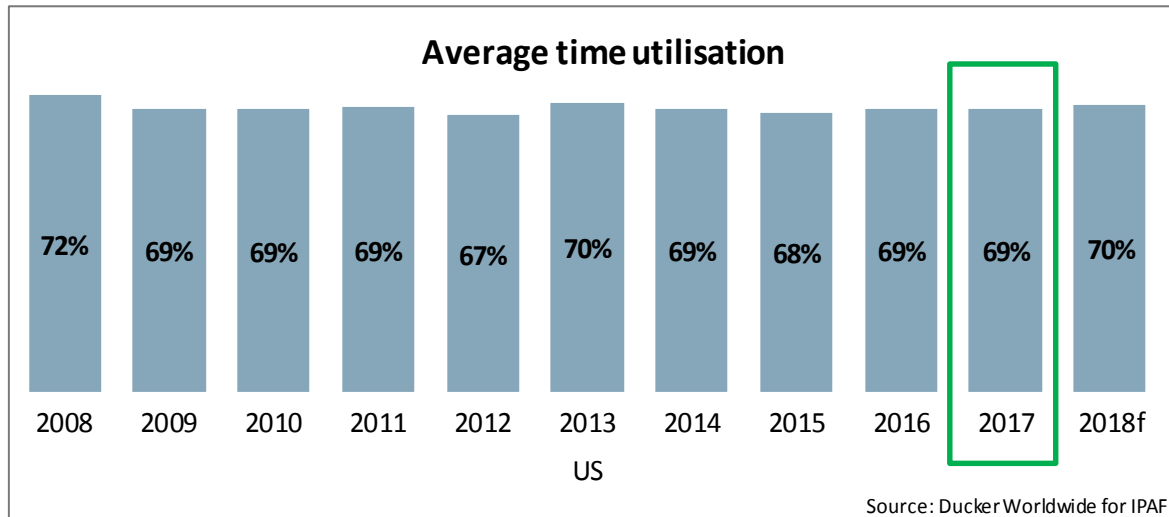
*[www.ipaf.org/reports](http://www.ipaf.org/reports)*



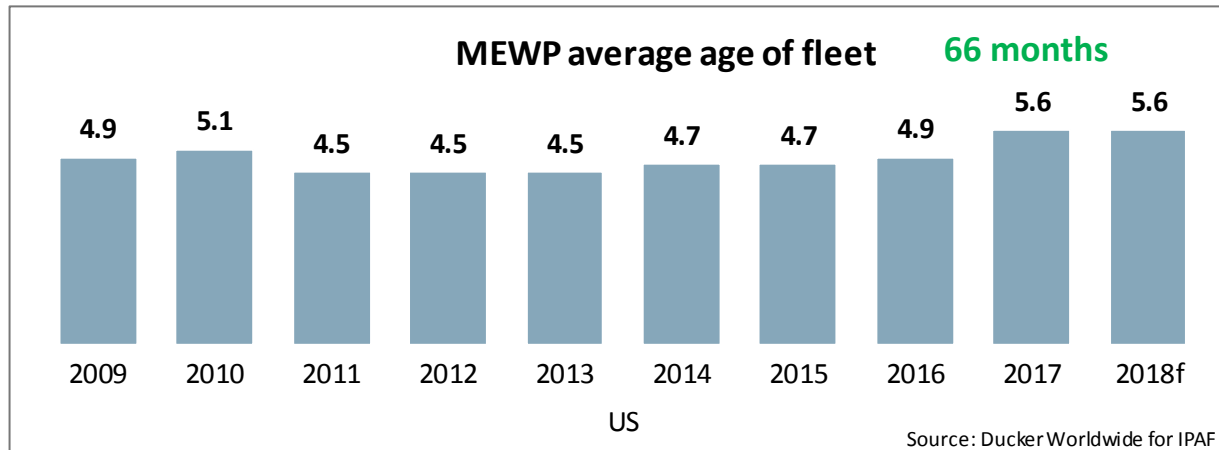
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The utilisation rate remained a consistent 69% from 2016 to 2017. It is projected to increase by 1% this year.

- Larger fleets usually tend to have a slightly lower utilisation rate than smaller fleets.
- For most companies, once a utilisation rate of 70% is reached, it is an indication, to add more to their fleet.
- Companies consider that an average utilisation rate of 70% allows sufficient time for machine maintenance and turnaround, and that it is not practical or desirable to pursue a higher utilisation rate.



As more modern and robust equipment enters, the average age of MEWP rental fleets has increased from 4.9 years in 2016 to 5.6 years in 2017. Average life-span is not expected to change this year.

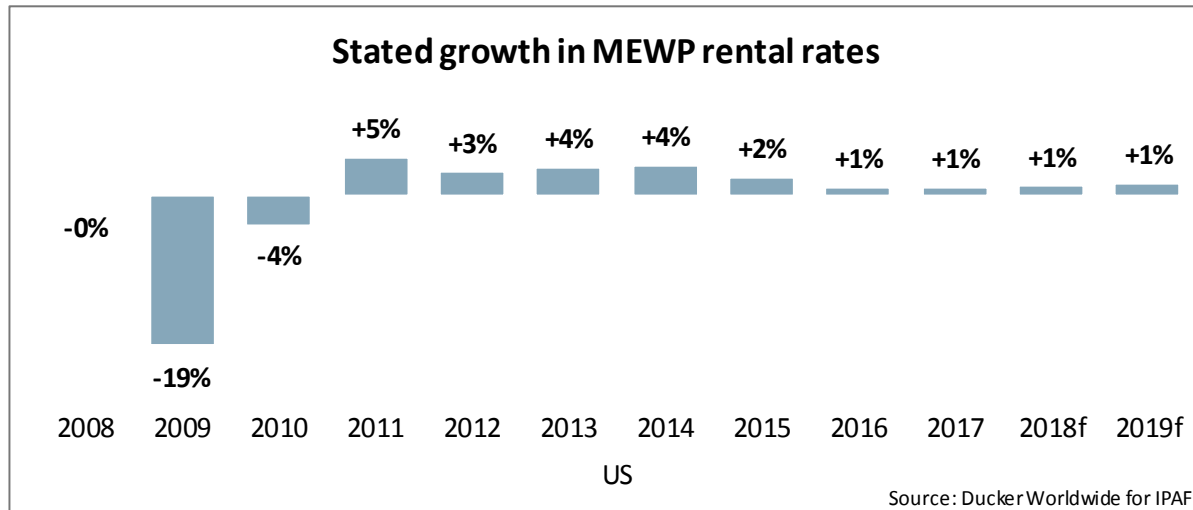


**5.6 = 5 years and 6 months**



As the market has not yet reached saturation, rental rates continue to grow and are expected to continue to grow by around 1% each year until 2019.

- Rental rates have almost plateaued with just slight increases each year.
- For most firms, rental rates inversely correlate to utilisation rates.
- Companies with lower rental rates are thus more likely to seek higher utilisation rates.



A growing demand is identified for all safety features, such as secondary guarding device.

- Similar to last year, safety features remain important in the US MEWP rental market.
- On-board generators come second for both boom and scissors lifts.

**Booms**

1	<b>Safety features: secondary guarding device</b>
2	<b>On-board generator (for running tools or welding)</b>

**Scissors**

1	<b>Safety features: secondary guarding device</b>
2	<b>On-board generator (for running tools or welding)</b>
3	<b>Narrow width machine</b>

Other mentioned features are:  
  
**Remote control from the ground,  
 higher load capacity/additional  
 weight in the basket, and  
 alternative source to lead acid  
 batteries.**

# A PERSPECTIVE FROM THE MANAGING EDITOR OF *INTERNATIONAL RENTAL NEWS* IPAF Powered Access Rental Market Report 2018 – USA

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- There is nothing inevitable about continued growth in the US rental market, though sometimes it seems that way.
- The American Rental Association continues to forecast annual growth levels around the 5% mark and United Rentals' CFO, Bill Plummer, speaking in October last year, said it was his view that the US rental market would remain at a high level for several more years.
- Mr Plummer made his forecast while simultaneously pointing out that predicting the timing of business cycles was as much an art as a science, and one that has proven very difficult for the rental industry to master. That remains true, but in the absence of any major shocks it does appear that US rental companies will operate in a favourable environment for the next year or two.
- There was a hint of a slowdown a few years ago when the oil and gas price reductions led to a reduction in investment in shale-based resources, but that dip has been weathered and overcome.
- What that means, in all likelihood, is a continued climate of mergers and acquisitions, which has had a major impact on the access sector. Sunbelt Rentals alone has made more than ten acquisitions in the past 18 months in North America, while United Rentals has continued to make bolt-on additions, with the takeover of Neff Corp – after a brief battle with H&E Equipment – following the headline deal for NES.
- In the first months of 2018, several of the biggest rental companies were also benefitting from the new Federal Tax Cuts and Jobs Act: for United this meant a benefit of more than US\$650 million for its 2017 financial year, while HER Rentals reported a \$207 million gain. If President Trump can also deliver on his much-discussed infrastructure plan – a long way from a given – then it will only serve to improve market conditions for the rental sector.



- The US access market is also going through some significant technical changes, with new ANSI regulations introducing the concept of load measurement in the platform, leading to the dual capacities and variable working envelopes already familiar in the European market. It is probably a good thing that these changes, which require investment in training not to mention the cost of the machines, are happening at a time of good market conditions.
- North American manufacturers and rental companies – and IPAF – are also among the first to push the use of augmented reality for training and repair and maintenance activities.
- The access industry is not usually a first-adopter when it comes to this kind of technology, but it is likely that it will be the world’s biggest players in North America who will be the pioneers. That much, at least, is probably inevitable.
- North American manufacturers are also at the vanguard of trialling and introducing new technologies, reflecting the impact of digital and other emerging technologies. JLG, for example, highlighted at the IPAF Summit in Miami in March 2018 the potential of self-levelling systems and digital monitoring of platforms, as well as self-loading and – unloading of platforms, something that would be welcomed from a safety perspective.

# MARKET TRENDS AND DRIVERS

## IPAF Powered Access Rental Market Report 2018 – USA

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Mergers and acquisitions remain attractive in this market as opposed to organic growth. Falling/lower global oil and gas prices have negatively impacted some core MEWP rental markets in the US, but those effects are less pronounced than in previous years. Cross-hire is not very common in the US.

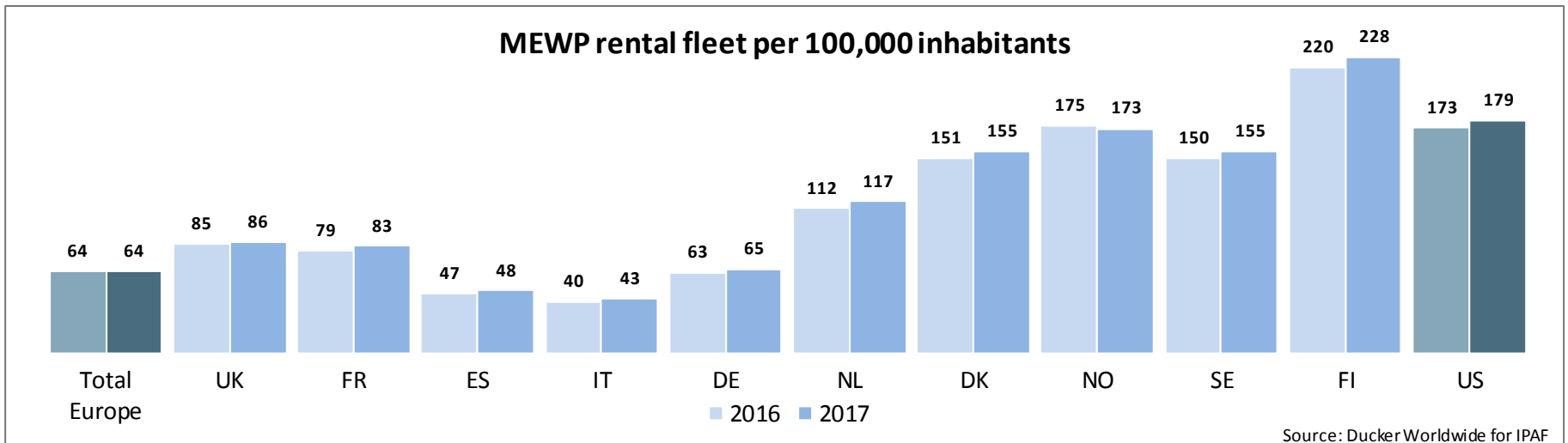
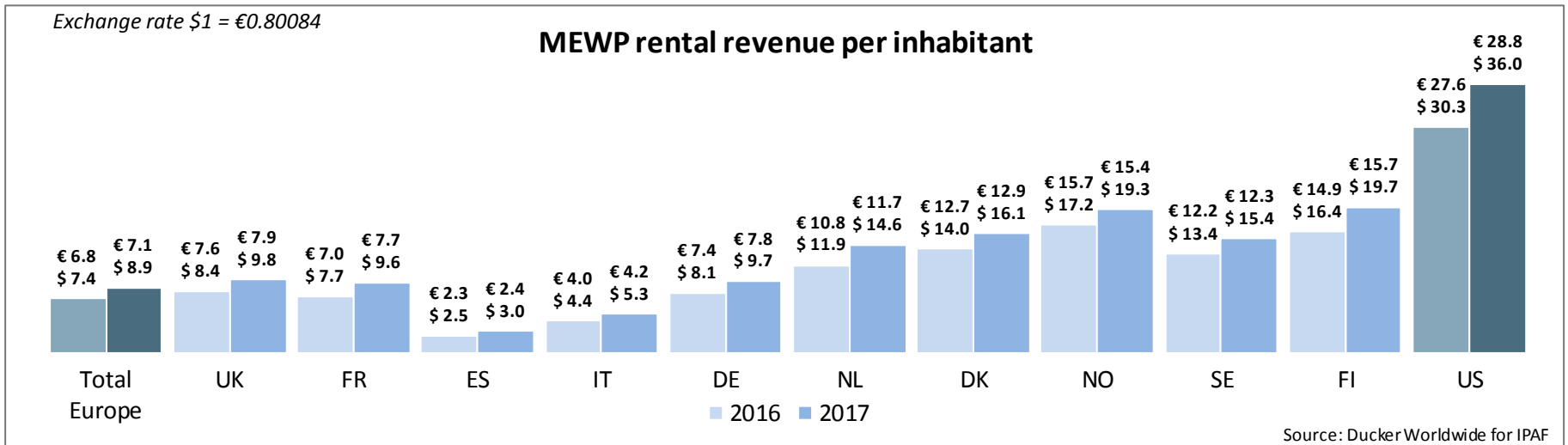
### **MEWP new safety standards**

- The market is well aware of the new ANSI and CSA related safety standards
- Even though the market is informed about these new regulations, they are yet to be published in the US, though they were published in Canada in May 2017, and effective from May 2018.
- New standards are having a significant impact on both the machine manufacturers and operators.
- Compliance with safety standards is a learning curve to which the market will adjust.

### **Rental companies' market concentration**

- Market sentiment is quite positive, so many large companies are on the hunt to acquire smaller players in order to consolidate market share.
- Several major acquisitions took place last year, and leading players have confirmed their dominant position in the market.
- This trend is expected to continue in the coming years with mergers and acquisitions expected to be a common trend in the immediate future.

Country population penetration – MEWP rental revenue per inhabitant.

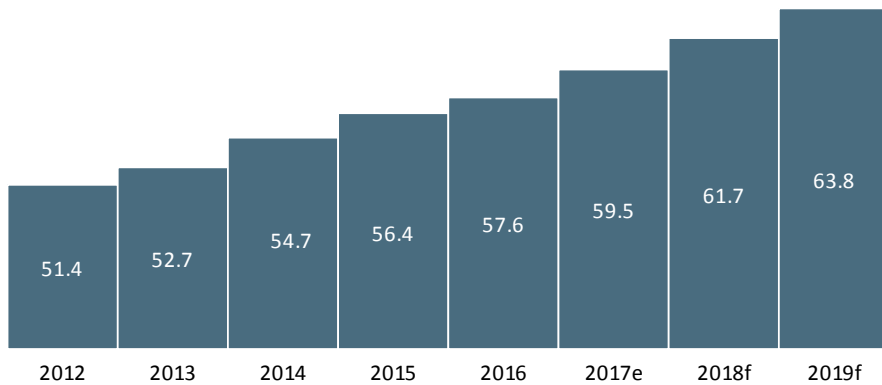




Most macro-economic indicators seem to have a positive outlook until at least 2019. Nevertheless, as unemployment rate is predicted to start rising again post-2019, forecasts remain uncertain regarding the 2020s.

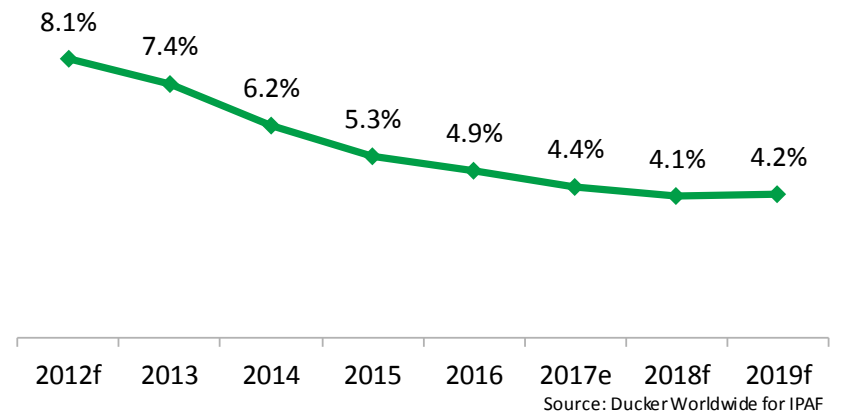
**Compound Annual Growth Rate CAGR (2017-2019): 3.55 %**

**US – GDP per capita**



*Thousand US dollars at 2017 prices.  
Source: International Monetary Fund, World Economic Outlook Database, October 2017  
CAGR = Compounded Annual Growth Rate*

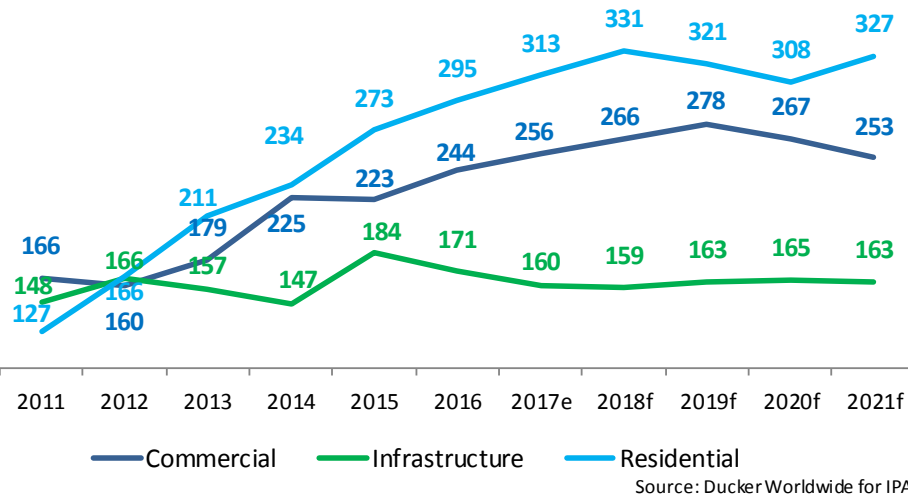
**US – Unemployment rate**



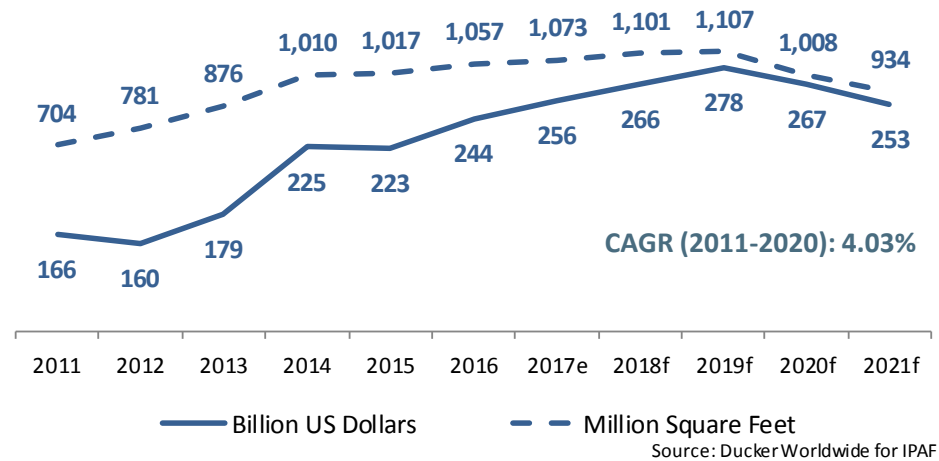
*Source: International Monetary Fund, World Economic Outlook Database, October 2017*

The construction sector has been growing overall up until 2018, nevertheless residential construction could decline in 2018, followed by the non-residential construction sector in 2019 and possibly beyond.

### Construction pipeline



### Non residential construction pipeline



Source: McGraw-Hill Construction, Dodge Construction Outlook 2017

# CANADIAN MEWP MARKET

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In 2017, the MEWP rental Canadian market experienced a significant growth after several years of relative stagnation. Outlook is positive for the next few years.

- Total MEWP rental revenue increased by at least 5% in Canada in 2017. Several factors drove the market growth:
  - Overall the economy is getting stronger and the past impact of downturns in the oil and gas sector are diminishing.
  - The construction sector has taken off and several new projects are beginning: Residential construction in particular showed strong and sustained growth and the outlook is positive.
  - Some US companies have started opening new branches or taken over existing companies in Canada.
  
- While growth in the past few years has been only moderate (approximately 1% growth rate reported in 2016), the Canadian MEWP fleet size expanded rapidly in 2017, by around 8% to reach almost 68,000 units.
  - The fleet mix has not changed much and scissors still dominate the Canadian MEWP rental fleet.
  - After decreasing over the past few years, the share of booms is set to increase slightly again.
  
- Similar to other market indicators, utilisation increased by 2% in 2017, and reached a level of 69%.
  - Some rental companies expect it to increase again in 2018, by another 2%.
  
- As forecast in last year's report, rental rates stopped falling/stabilised in 2017. Some rental companies even managed to increase them in 2017 by 3-4%.
  - A similar growth trend is expected for the coming years as optimism returns to the Canadian market.
  - Rental companies remain cautious about longer-term forecasts.

# UNITED ARAB EMIRATES FOCUS

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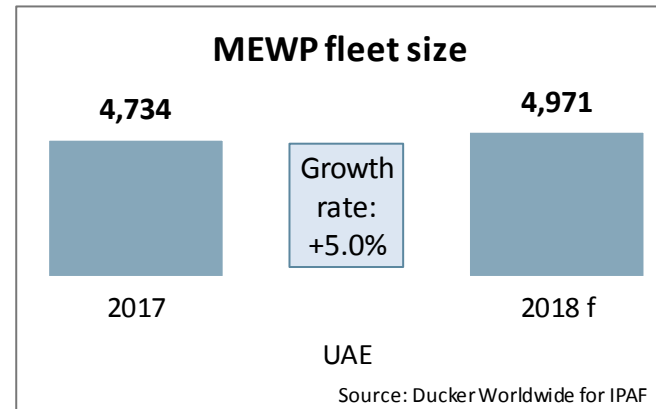
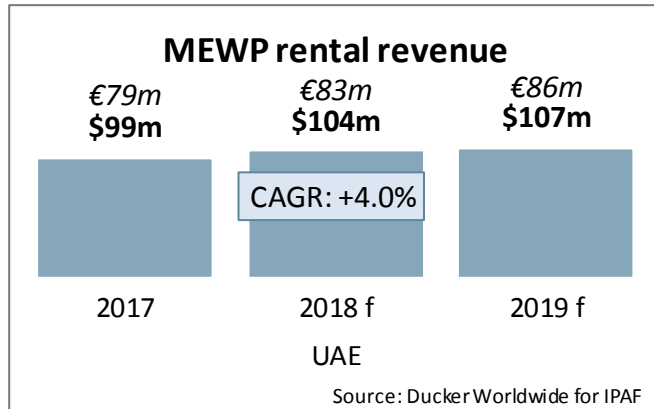
## IPAF Powered Access Rental Market Report 2018

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[www.ipaf.org/reports](http://www.ipaf.org/reports)

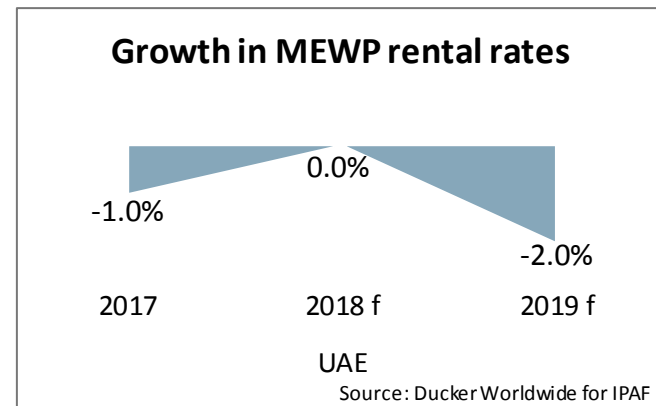
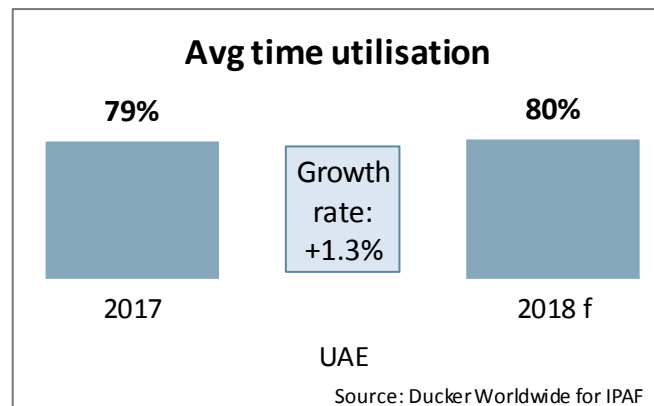


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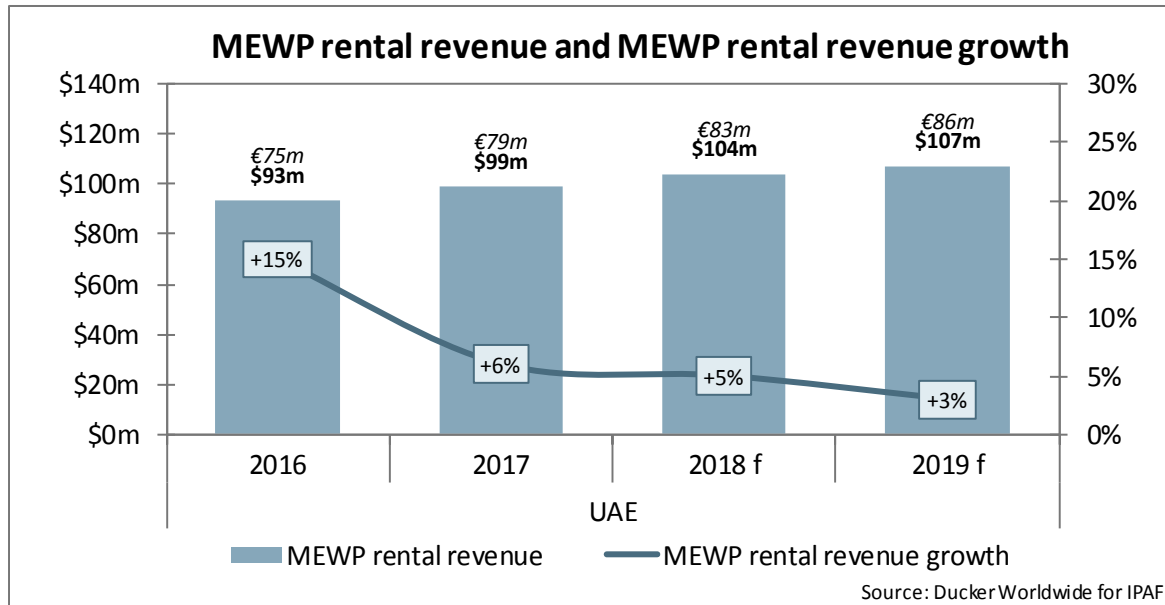
Positive growth is projected for the next few years for the UAE MEWP rental market. However, market outlook from 2020 onwards remains uncertain.



- As we approach Expo 2020, the overall market outlook is positive; this is mainly linked to an increase in overall fleet size and utilisation rates.
- Overall fleet growth is mainly linked to new players entering the market, which will eventually have a negative impact on rental rates.



The UAE market is experiencing steady growth in 2017 and 2018, but is expected to slow down from 2019 onwards. This is mainly linked to the completion of Expo 2020 projects.

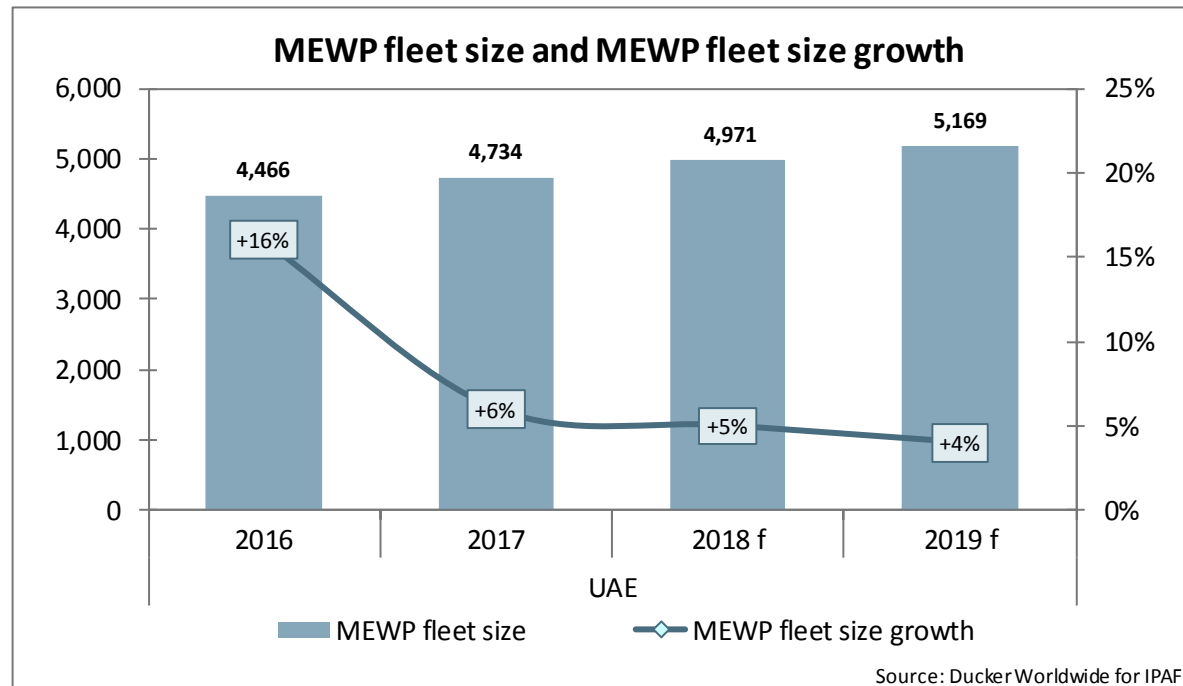


Exchange rate \$1 = €0,801

- In 2017, the UAE MEWP rental market value was equal to \$99 million, or €79 million.
- Despite positive growth figures from 2016 to 2018, growth slows as we move closer to Expo 2020.
- Due to opportunities related to the Expo 2020, more players entered the market in 2017, acting as a catalyst to the overall growth of the market.
- Overall outlook for the market remains positive until 2019, despite challenges linked to payment collection and increased competition.
- Uncertainties prevail in the market from 2019 onwards. This could lead to an excess supply, unless other projects are inaugurated.

The UAE MEWP rental fleet was close to 4,700 units in 2017. Though the growth rate has slowed from the previous year, the UAE MEWP rental fleet saw an increase of 6% in 2017.

- Growth in fleet is mainly triggered by new players entering the UAE market, which is a trend expected to continue in 2018.
- Existing players have held back on fleet purchases, which is why the fleet size growth rate decreased from 16% in 2016 to 6% in 2017.

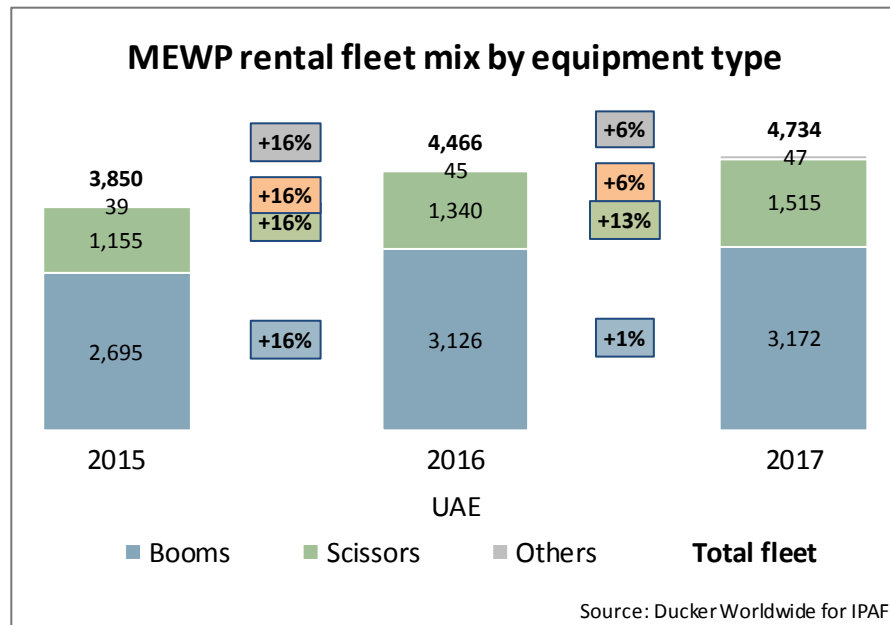


*Note: Included are powered access lifts: all booms, scissor lifts and vertical masts; Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers;*



Booms to scissors ratio is approximately 70:30 in favour of booms. Booms serve a more consistent year-round demand compared to scissors.

- Booms are more consistently in demand in the UAE and it will remain this way in the near future.
- One typical application for scissors is during conferences and exhibitions, which take place towards the last quarter of the year.



*Note: Included are powered access lifts: all booms, scissor lifts and vertical masts;  
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers;*

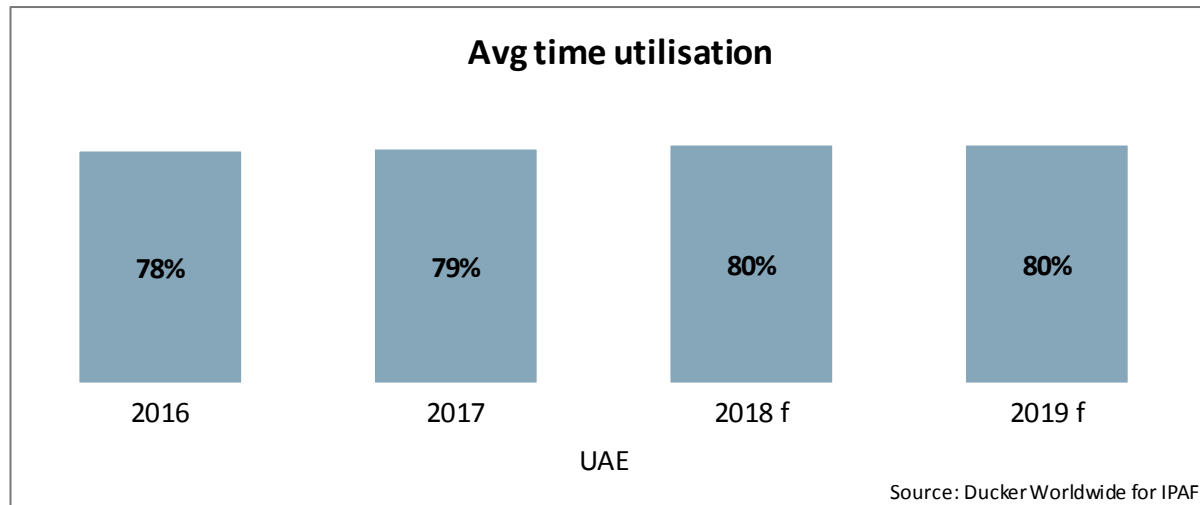
+X%

**% unit growth, eg booms fleet increased by 1% from 2016 to 2017.**

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

The average utilisation rate in the UAE was 79% in 2017. It is expected to increase slightly in the current year and to remain constant in 2019.

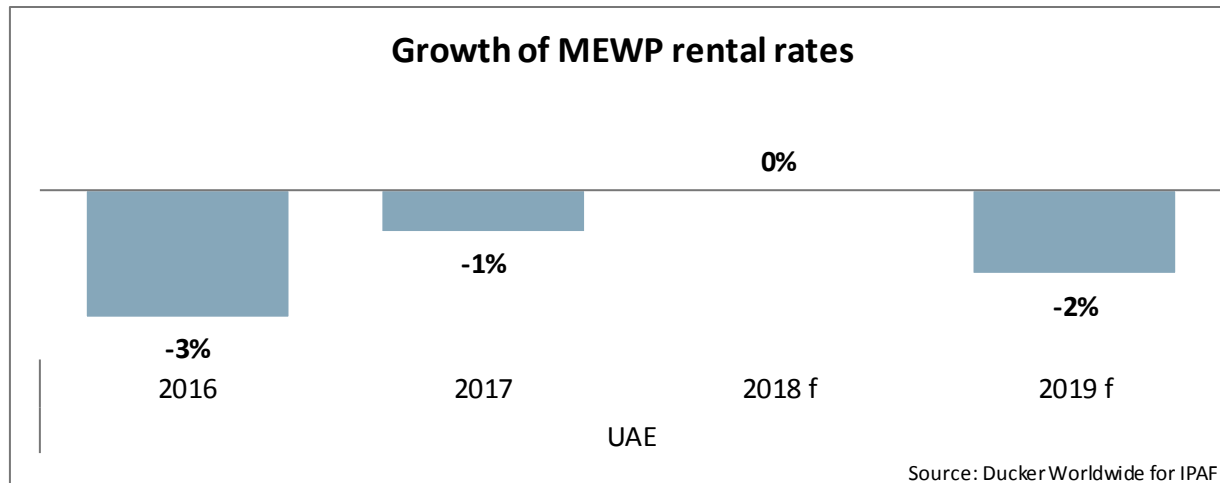
- The utilisation rate continues to increase slightly from 2016 to 2018 as the pressure to complete the work for the Expo 2020 intensifies.
- Nevertheless, an overall utilisation rate of more than 85% is considered undesirable, due to the time necessary for equipment turnaround and maintenance.



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

Rental rates have continued to decrease in 2017, due to the fierce competition and new comers entering the UAE MEWP rental market. Although a stabilisation is expected in 2018, rental rates are likely to fall again in 2019.

- Due to the pressure of complying with the Expo 2020 timeline, rental rates are expected to stabilise in 2018.
- However, rental rates are expected to decline again in 2019, as most of the work related to the Expo 2020 will be completed by then, meaning more limited opportunities and stronger competition.
- This could change if new projects are inaugurated in 2018 or early 2019.



# APPENDIX TO UAE

## IPAF Powered Access Rental Market Report 2018 – UAE

*The International Powered Access Federation*

[www.ipaf.org/reports](http://www.ipaf.org/reports)

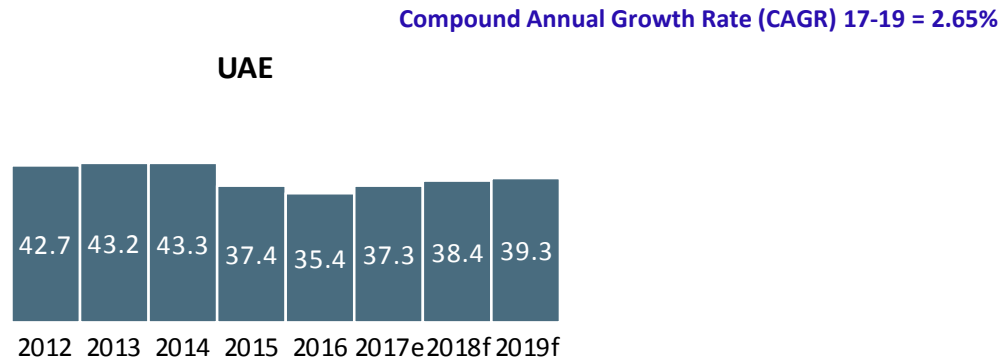


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- Exchange rate:
  - The currency exchange rate used for the UAE is shown below. The same rate has been used throughout the time period (2017) in order to eliminate variation in growth rates due to exchange rate fluctuations rather than to the actual MEWP rental market.

	<b>Currency Unit</b>	<b>Converter to Euro</b>
US	USD	0.801

GDP per capita is expected to constantly increase over the next years. MEWP rental market is expected to follow similar trend.



*UAE GDP per capita in thousand euros - estimates based on IMF World Outlook Database – October 2017*

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# COUNTRY REPORT – FRANCE

IPAF Powered Access Rental Market Report 2018 – Europe

*European Association Award-winner for Best Provision of  
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THE EUROPEAN  
ASSOCIATION  
AWARDS 2018

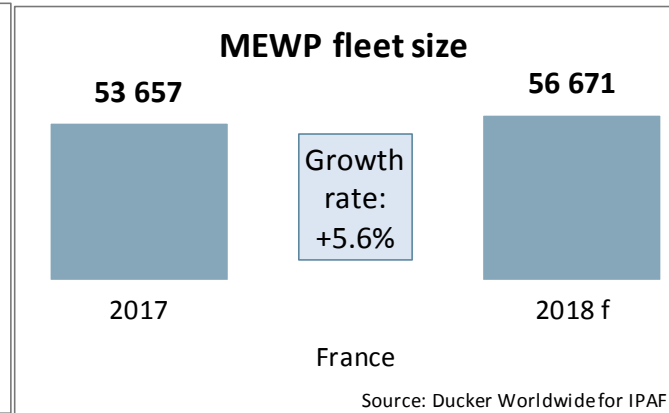
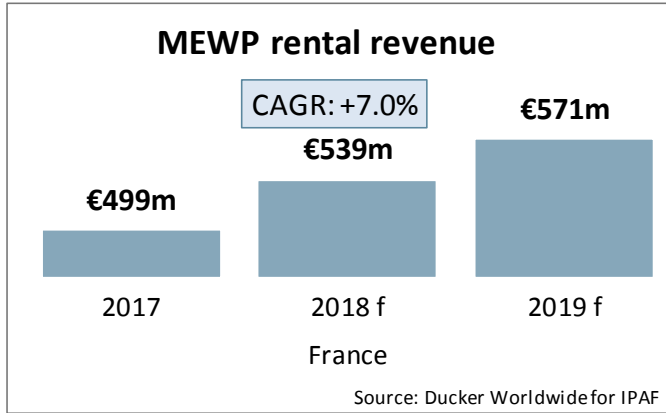
BRONZE  
Best Provision of Industry  
Information and Intelligence



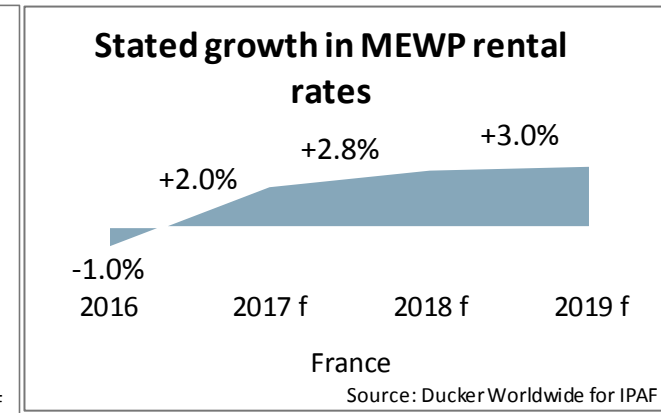
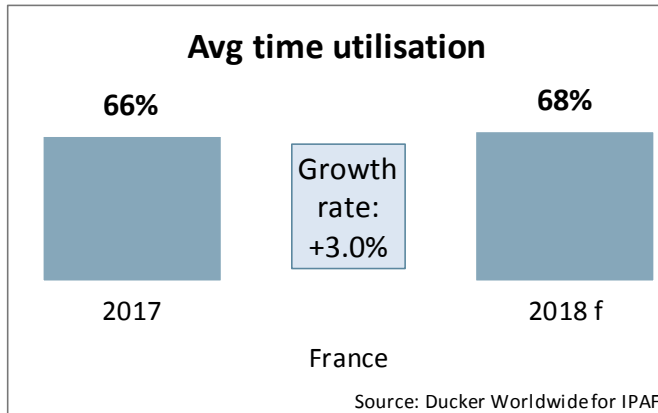
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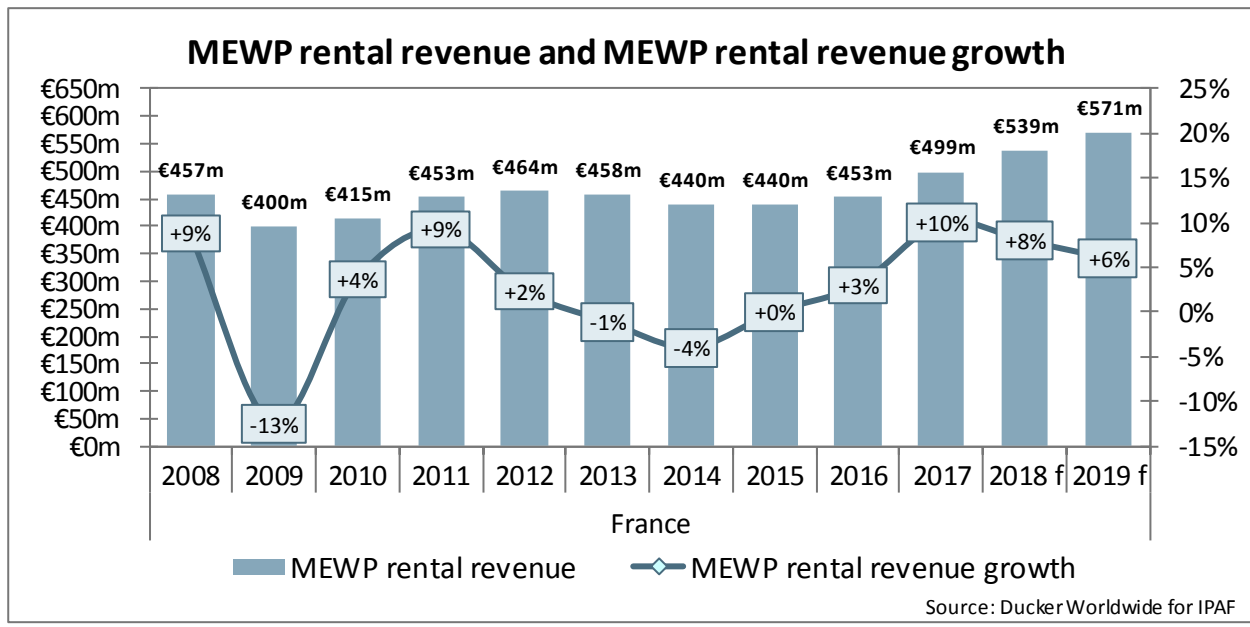
The French MEWP rental market has entered a phase of sustained growth: This trend, which began in 2016 is now confirmed and expected to continue over the next few years.



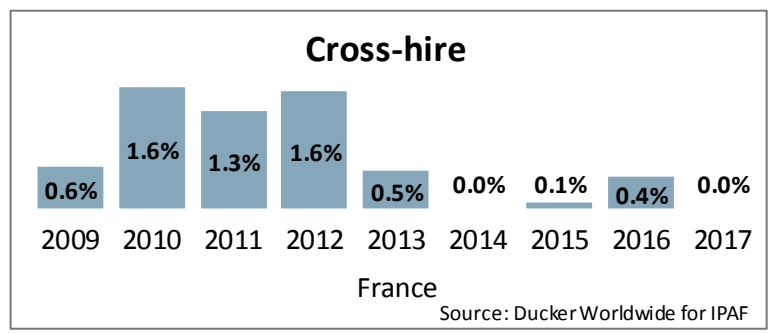
- The French MEWP rental market is among the most dynamic European markets under study, with double-digit revenue growth reported in 2017.
- Outlook is optimistic and growth is expected to be confirmed over the next two years.



The growth that began in 2016 on the French MEWP rental market continued in 2017 and indeed exceeded expectations, with an unprecedented double digit growth rate for the first time in the last decade.

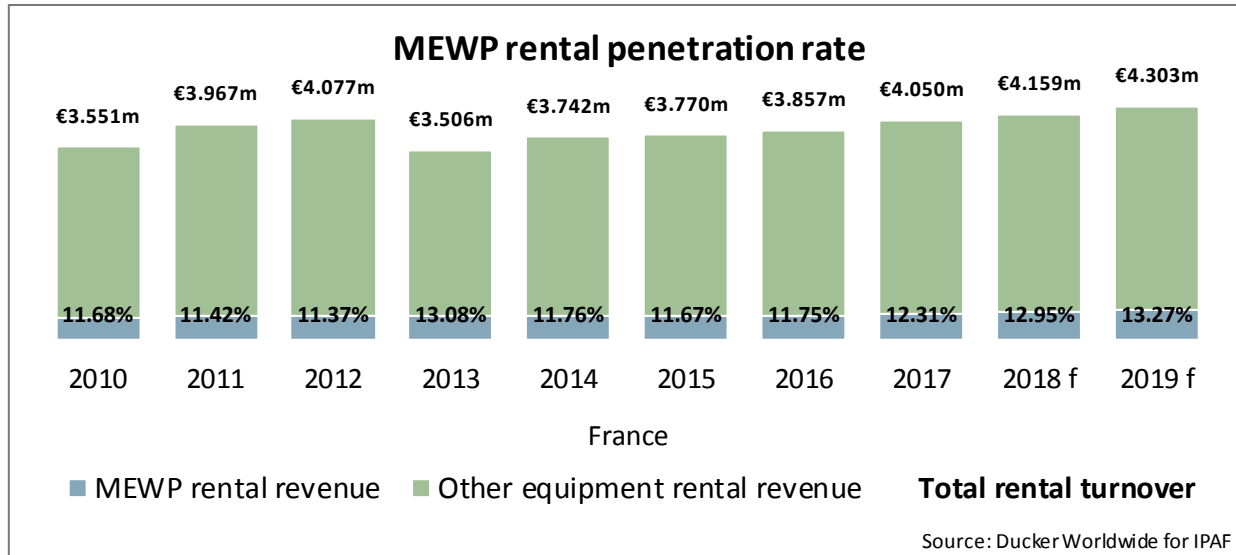


- 2017 was an excellent year for the French MEWP rental market. The market experienced a double digit growth for the first time since the 2008 downturn.
- The recovery that began in 2016 is expected to continue in the coming years, although at a relatively more moderate level.
- In 2017, the MEWP rental market exceeded its pre-recession value. It is now expected to generate more than €500 million revenue in 2018.
- A negligible level of cross-hire was identified in France in 2017. Cross-hire has traditionally been relatively limited in the French MEWP rental market.



In 2017, MEWP rental revenues accounted for 12.3% of total equipment rental revenue (source ERA).

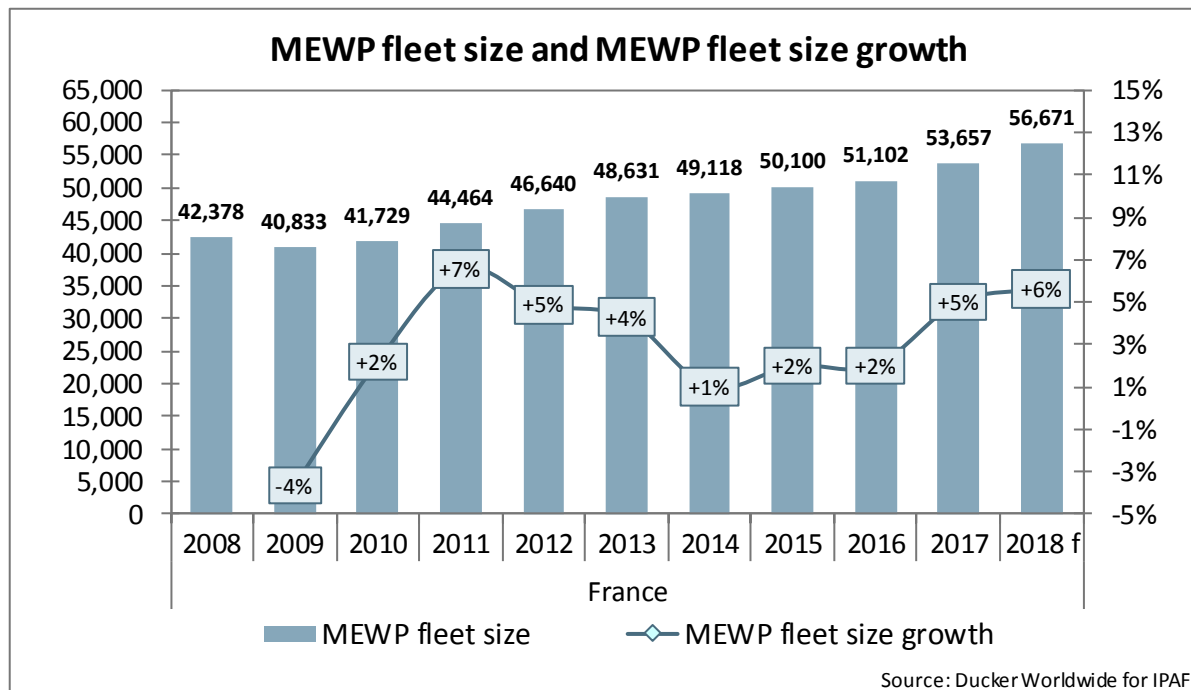
- Both the MEWP rental market and the overall rental market are developing in France. Nevertheless, the MEWP rental market is currently experiencing faster growth than the rental market, driving a slight increase in penetration.



Source for Total Rental Turnover: ERA 2017 Report.

Fleet size growth was one of the key drivers of French MEWP rental market revenue growth in 2017. It is expected to follow a similar trend in 2018.

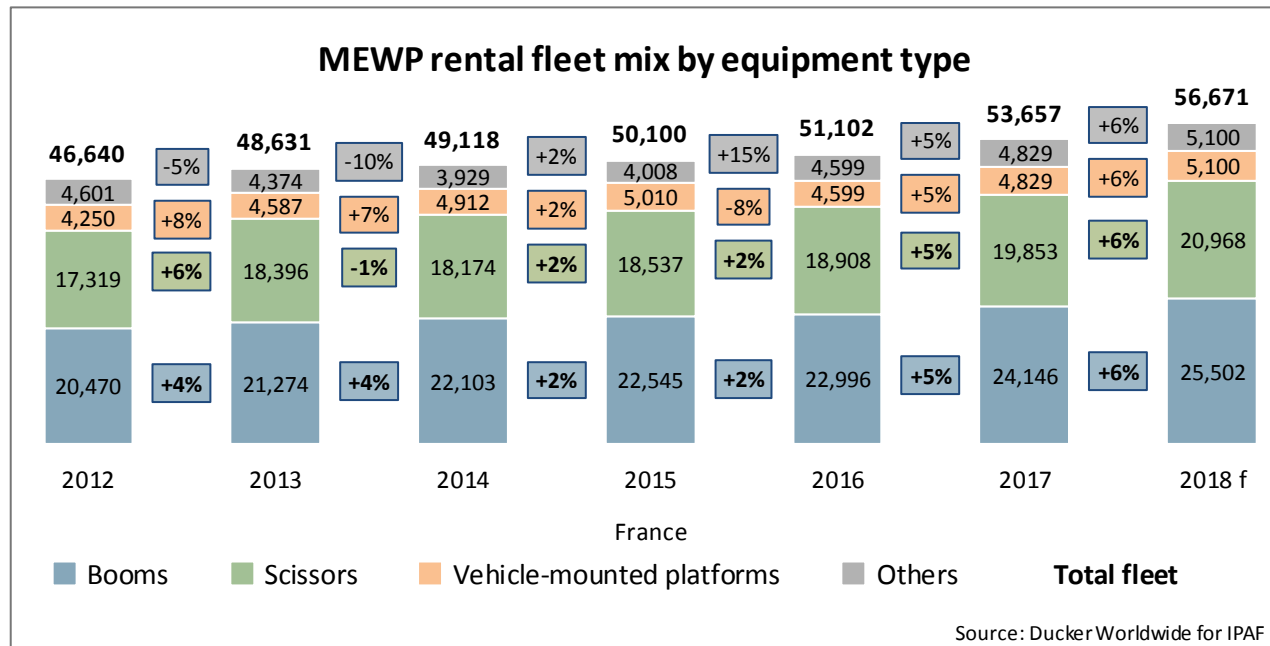
- As demand for MEWP rental grew and the Macron law (2017) allowed for tax deduction for equipment purchases, MEWP rental companies invested in fleet development, which led to significant fleet size increase in 2017.
- Fleet size is expected to continue to grow at a strong pace in 2018.



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

Booms represent the largest share of the French MEWP rental fleet, but demand is increasing across all equipment categories.

- Fleet mix remains unchanged in the French MEWP rental market and equipment categories are expected to grow at a similar pace.



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

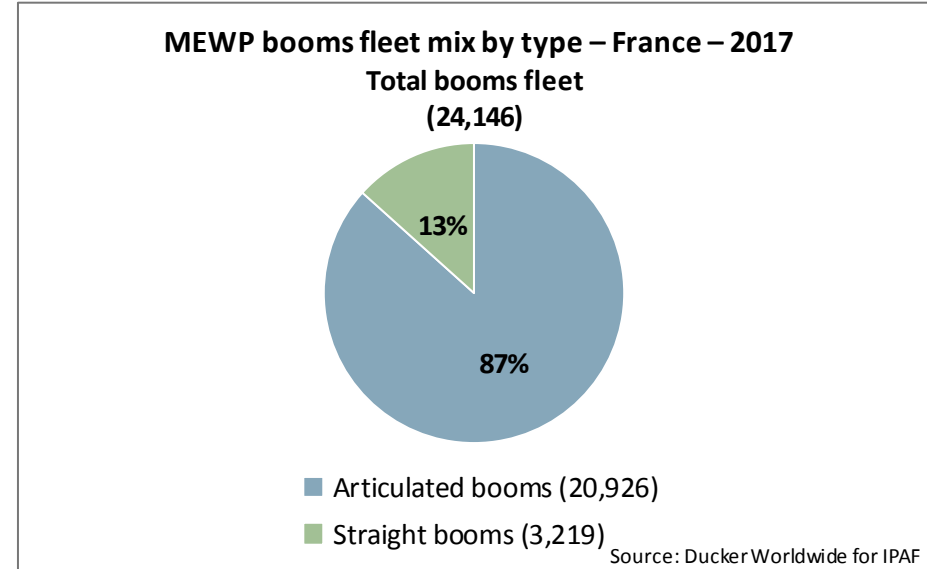
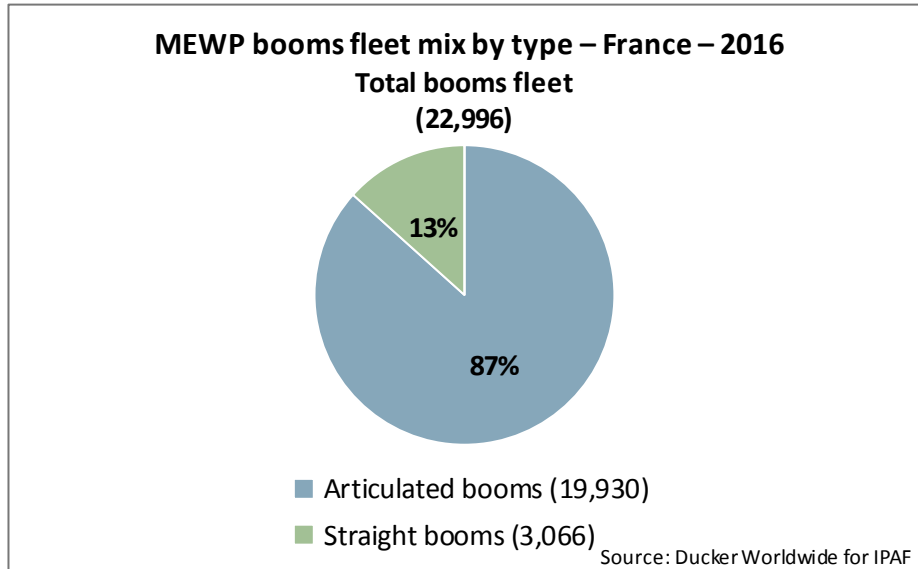
+X%

% unit growth, eg booms fleet increased by 5% from 2016 to 2017.

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

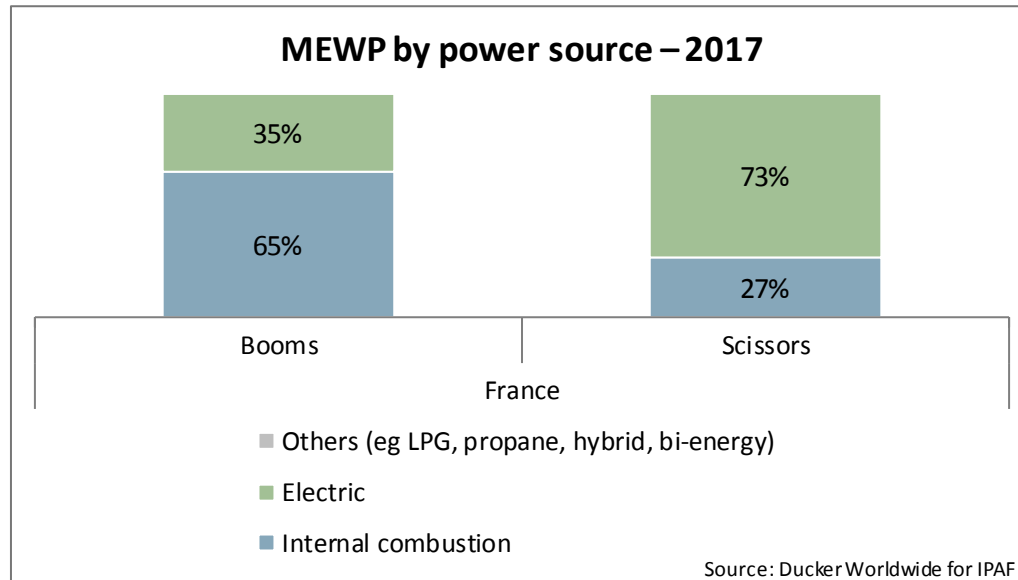
Articulated booms dominate the French rental boom fleet, accounting for more than 85% of the fleet.

- Fleet mix, including the split between straight and articulated booms, was unchanged in 2017 compared to 2016.
- Articulated booms are now close to 21,000 units in the French MEWP rental fleet.



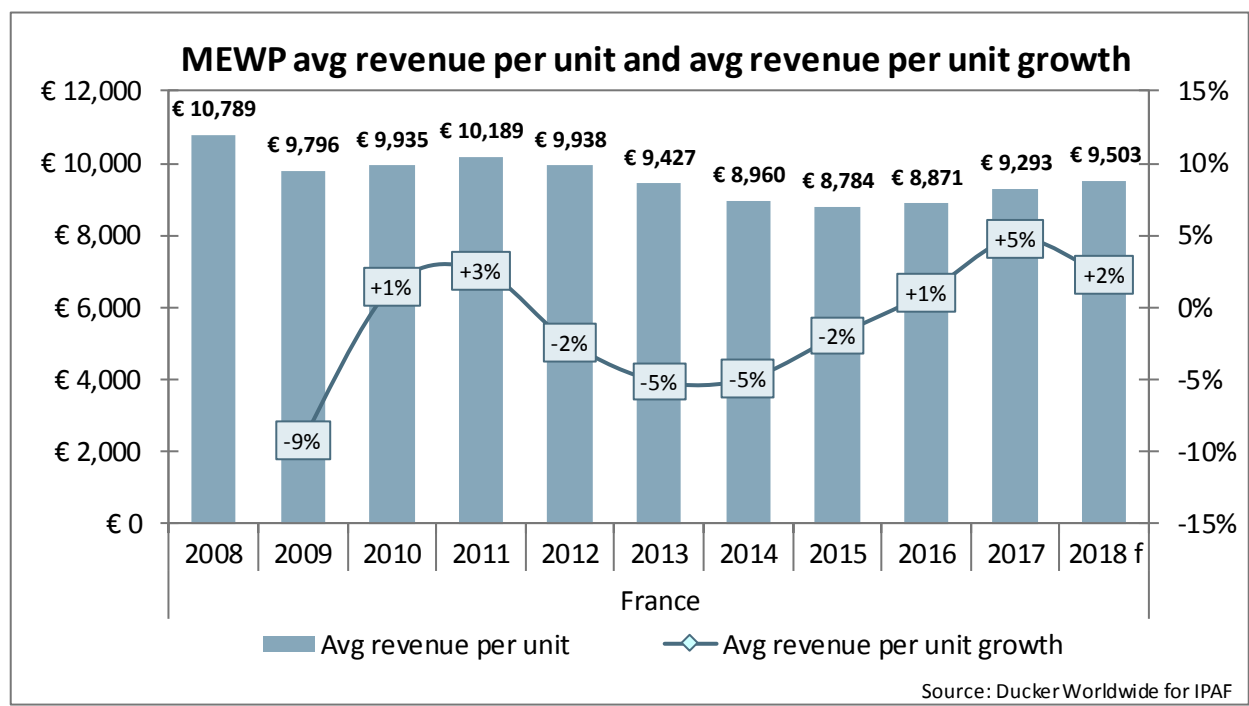
Electricity is the dominant power source among the scissor fleet, accounting for almost three quarters of the fleet. Electric machines account for 35% of all booms.

- The trend towards more electric equipment is expected to continue over the next years.
- End customers are asking for greener machines, so the payback period on smaller electric equipment is also reported to be much shorter than for larger diesel ones.
- The share of hybrid remains negligible in the French market but could increase in the coming years.



With the strong market recovery that occurred in 2017, revenue per unit increased by 5%, reaching almost €9,300.

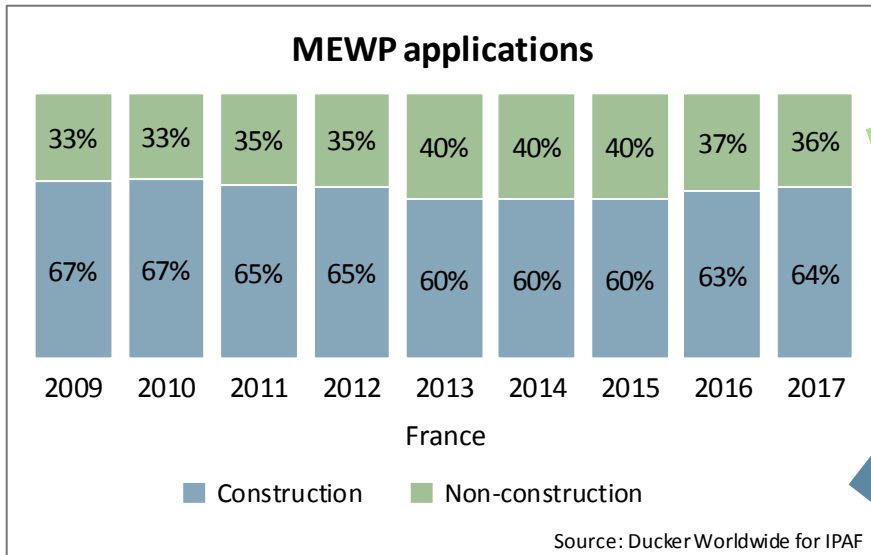
- Both revenue and fleet size have grown in France in 2017 but revenue grew at a faster pace, driven by an increase in utilisation rates and rental rates. As a result, MEWP rental companies managed to increase their revenue per unit significantly in 2017.
- The average revenue per unit is expected to continue to grow in 2018, though at a more moderate pace.



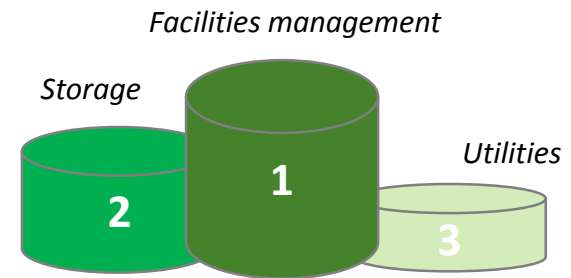
*Note: Included are powered access lifts: all booms, scissor lifts and vertical masts  
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers*



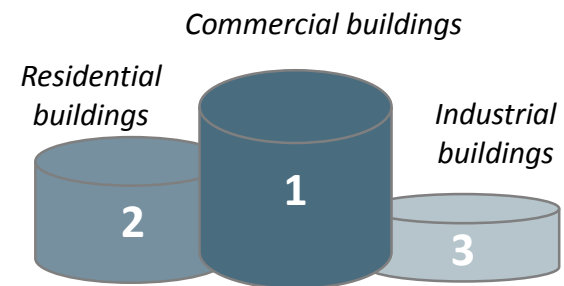
The construction sector applications gained slightly more share against non-construction, driven by solid growth in 2017.



### Main non-construction sub-sectors



### Main construction sub-sectors



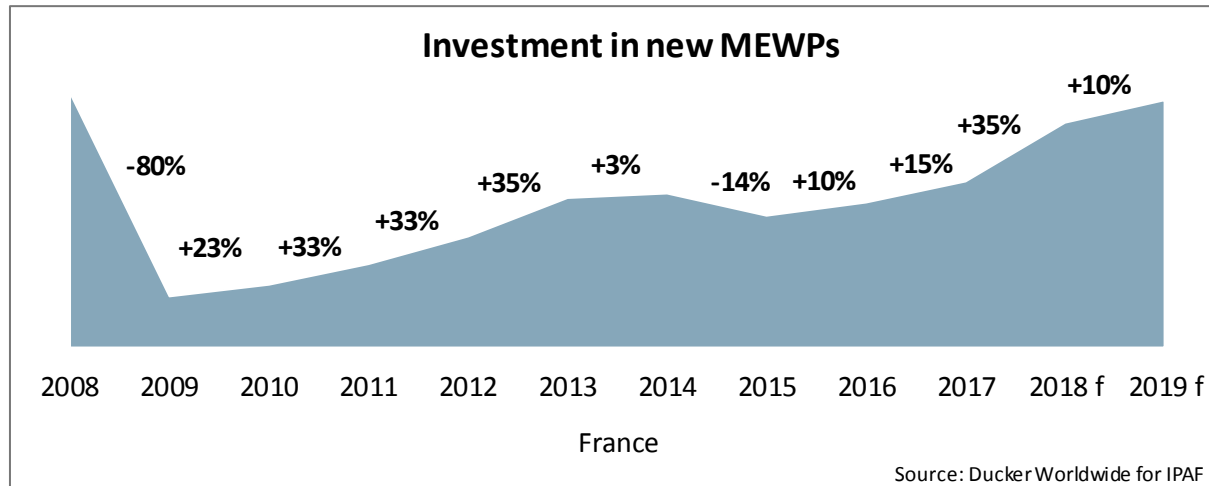
Share of rental revenues

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

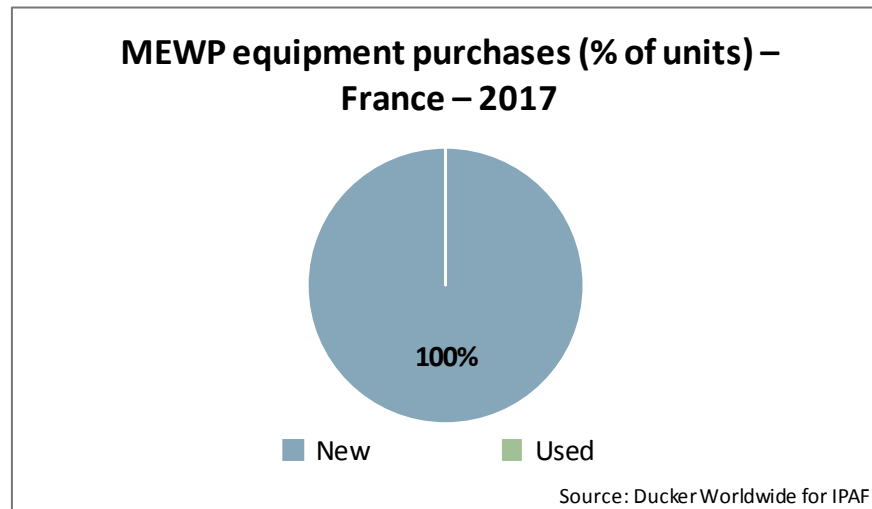
Construction includes new build and renovation; including all types of buildings, also industrial.

With the return of optimism to the French MEWP rental market, rental companies have continued to increase investment equipment purchases in 2017, similar to the trend that began in 2016.

- A higher total investment was reported by rental companies in 2017 for the second year in a row, directed to both increasing fleet size and equipment renewal.
- Rental companies expect to continue and even accelerate this trend in the coming years.

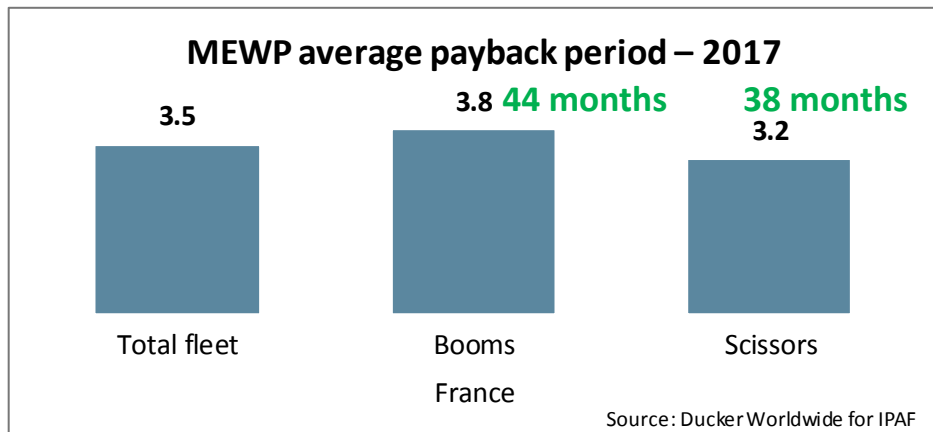


French rental companies exclusively purchased new equipment, possibly owing in part to the tax breaks on new equipment introduced by the Macron Law.



The typical MEWP payback period in 2017 averaged slightly more than 41 months, a similar level to 2016.

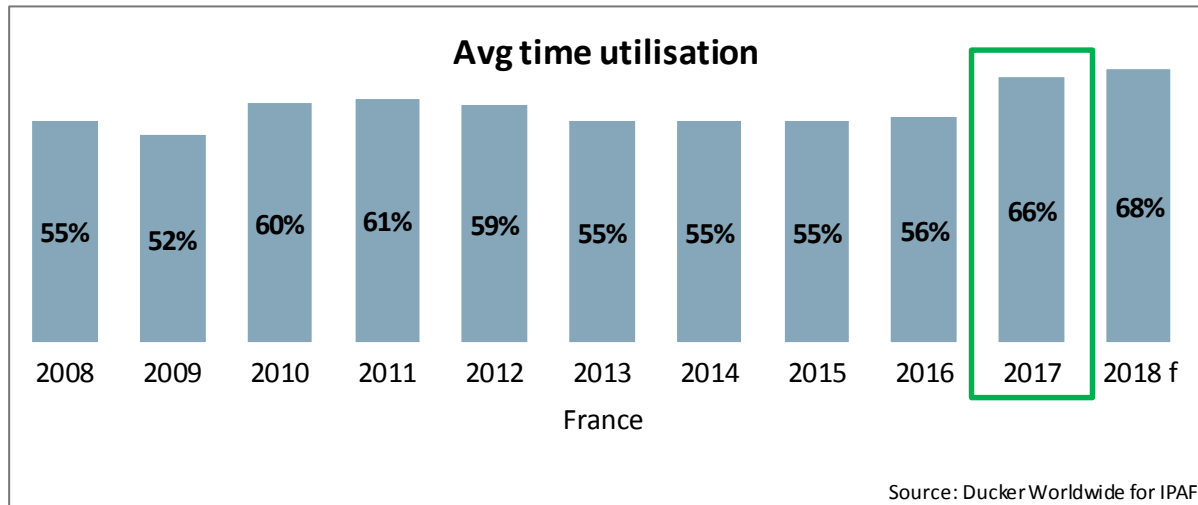
- The average payback period is reported to be shorter for scissors, mainly due to the orientation towards small electric machines among this product range.



**3.5 = 3 years and 5 months**

The utilisation rate of the French MEWP rental market jumped to a higher level in 2017, above 65%. This has increased quickly from a much lower rate to stand at around the European average.

- In 2017, MEWPs utilisation rate reached its highest level of the past 10 years.
- This significant growth is linked to quickly increasing demand, which growth has struggled to keep pace with.
- The outlook for 2018 is positive, utilisation rates should continue to grow, though at a more moderate pace.
- No significant differences were identified in utilisation levels between scissors and booms.



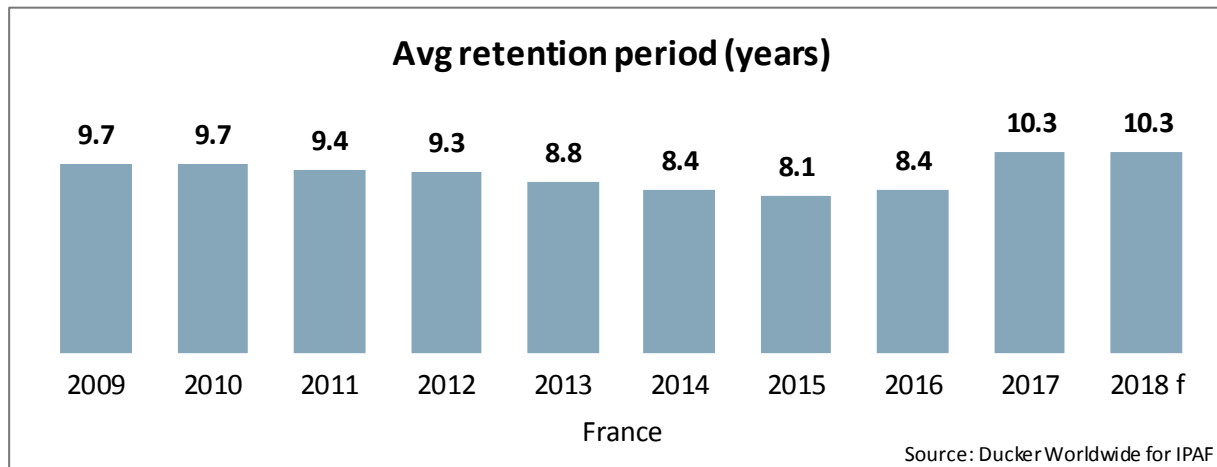
Scissors: 66%

Booms: 66%

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

MEWPs tend to be retained for just over nine years on average in rental companies' fleets.

- Although the retention period increased slightly in 2017, its level is expected to remain stable in 2018.

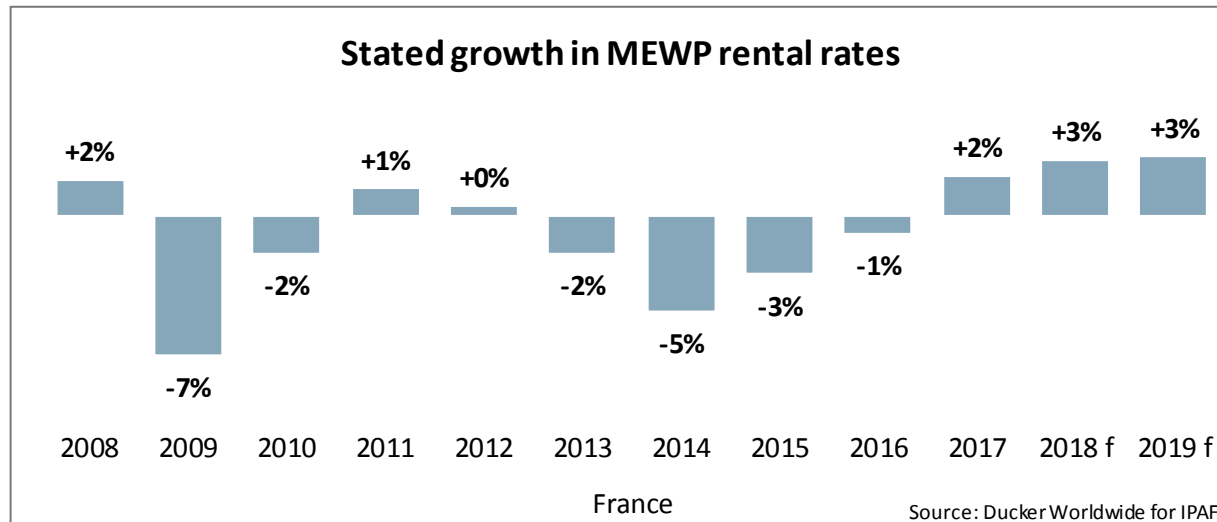


**9.2 = 9 years and 2 months**

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

As forecast in last year's report, and for the first time in six years, French rental rates have started to rise again in 2017. This positive trend is expected to be sustained in 2018 and 2019.

- The evolution of the main indicators of the French MEWP rental market shows a typical post-crisis scenario: First, equipment utilisation increases, followed then by an increase in rental rates.
- This growth is expected to be only the beginning of a more sustained rise in rental rates.



# A PERSPECTIVE FROM THE MANAGING EDITOR OF *INTERNATIONAL RENTAL NEWS* IPAF Powered Access Rental Market Report 2018 – FRANCE

The International Powered Access Federation  
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- As the UK slows down, so the recovery of its continental neighbours continues, notably France, which, after several years of slow growth is now firmly in expansionary mode.
- That is reflected in almost every statistic you can find, from mini-excavator sales – up 24% in 2017 – to construction growth to GDP. Limiting ourselves to the rental market, there is the European Rental Association’s forecasts for 2018 of 2.7% growth, followed by 3.5% in 2019. That after an estimated increase of 5.0% in 2017. (The ERA will publish updated forecasts at its convention in Vienna in May 2018.)
- The French rental and distributors association, DLR, is even more positive, with its member survey putting 2017 rental revenue growth in double figures, reflecting both increased utilisation and larger fleets. The same survey estimates that French renters increased their fleet expenditures by 40% in 2017 to a figure of around €1.2 billion.
- These figures are easy to believe when you see the results for its two largest players, Loxam and Kiloutou. Loxam invested €400 million in its fleet last year – double the level of 2016 – and the like-for-like revenue increase for its French operation, before acquisitions, was more than 8%. Similarly, Kiloutou reported a 14% rise in its 2017 revenues. Some of that was down to acquisitions, no doubt, but the core of its business remains in France.
- The two giants of French rental continue to battle it out, with Loxam winning the acquisitions war last year by acquiring Lavendon (Europe), Hune (Spain), Nacanco (Italy) and Swan Plant Hire (Republic of Ireland). That boosted its 2017 revenues by almost 50% and also gave it the largest fleet of MEWPs in Europe – around 45,000 units – by a factor of three.

- The company is also optimistic for 2018, with CEO and Chairman Gérard Déprez anticipating continued growth “in light of favourable prospects in both the construction market and macro-economic trends overall”.
- If Loxam garnered the attention for its acquisitions, it was also a banner year for Kiloutou, with very decent growth levels, a move into the Italian market, and new owners in the shape of private equity businesses HLDI and HDL Europe. The deal valued Kiloutou at around €1.5 million, and the change in ownership coincided with long-time CEO Xavier du Boÿs moving up to the chairman’s role and nine-year Kiloutou executive Olivier Colleau taking on the post of CEO.
- The improving French market has clearly alerted private equity businesses to the attractions of rental, with Acces Industrie getting new private equity owners in October 2017. Acces Industrie, like family-owned Salti, is the next tier down in terms of access rental in France, though still with fleets in excess of 4,000 units (Salti differs in being a generalist, however.)
- So France is enjoying a positive period, and with the prospect of several years at least of steady growth levels. A key question for the market is whether other European players will see it as an opportunity. Riwal already has, but will the strength of Loxam and Kiloutou be enough to deter others?

# APPENDIX

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## IPAF Powered Access Rental Market Report 2018 – FRANCE

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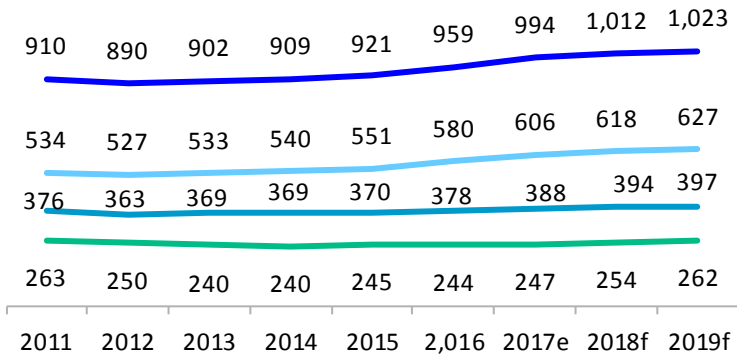


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The construction sector in France seems to have entered a phase of continuous growth, which is expected to be sustained over the next few years. The Grand Paris project is driving growth in Ile de France.

**Compound Annual Growth Rate (CAGR) 17-19 = 1.46%**

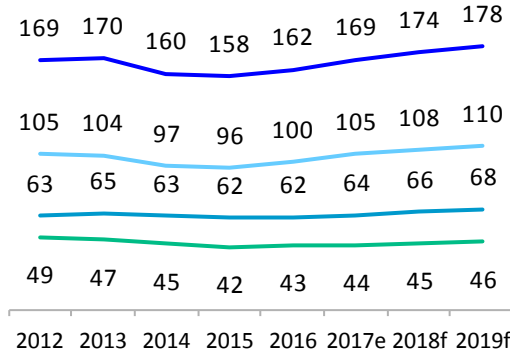
### Europe – Construction data



Source: Ducker Worldwide for IPAF

**Compound Annual Growth Rate (CAGR) 17-19 = 2.63%**

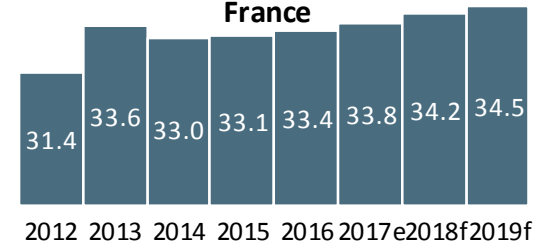
### France



Source: Ducker Worldwide for IPAF

**Compound Annual Growth Rate (CAGR) 17-19 = 1.06%**

### France



FRANCE GDP per Capita in thousand euros – estimates based on Euroconstruct 2017.

Construction put in place in billion Euros based on Euroconstruct 2017.

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering

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# COUNTRY REPORT – GERMANY

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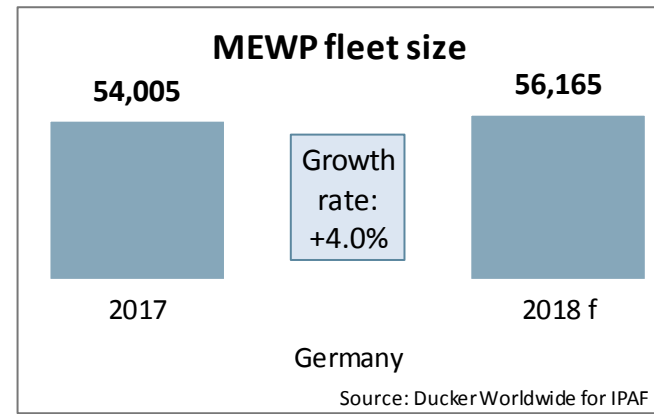
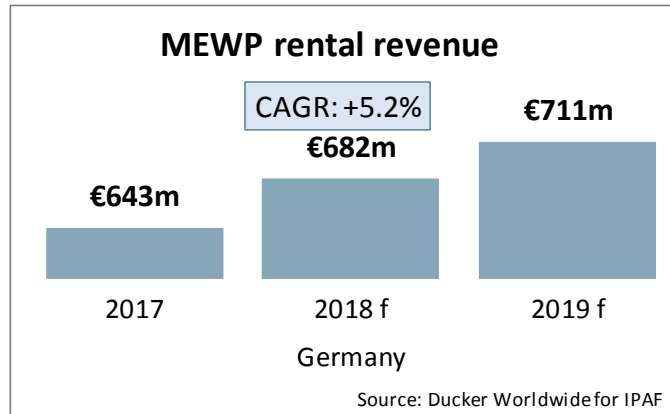
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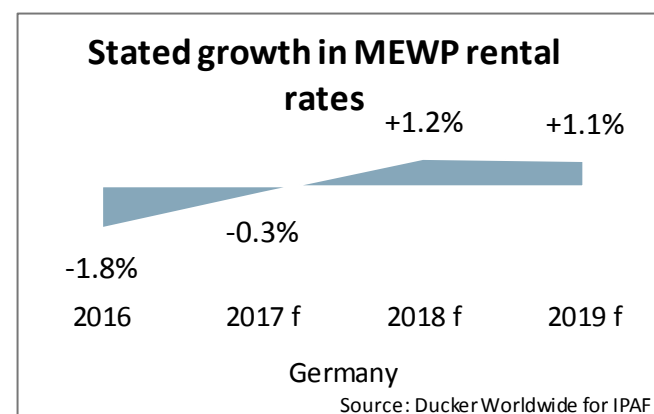
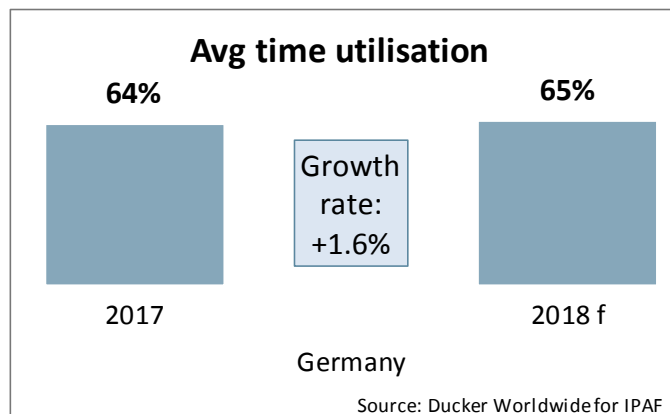


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The German MEWP rental market experienced strong growth in 2017 and this is expected to continue over the next few years, thanks to strong market demand coming mainly from the non-construction sector. There it continued fierce competition in the market, leading to suppressed rental rate.

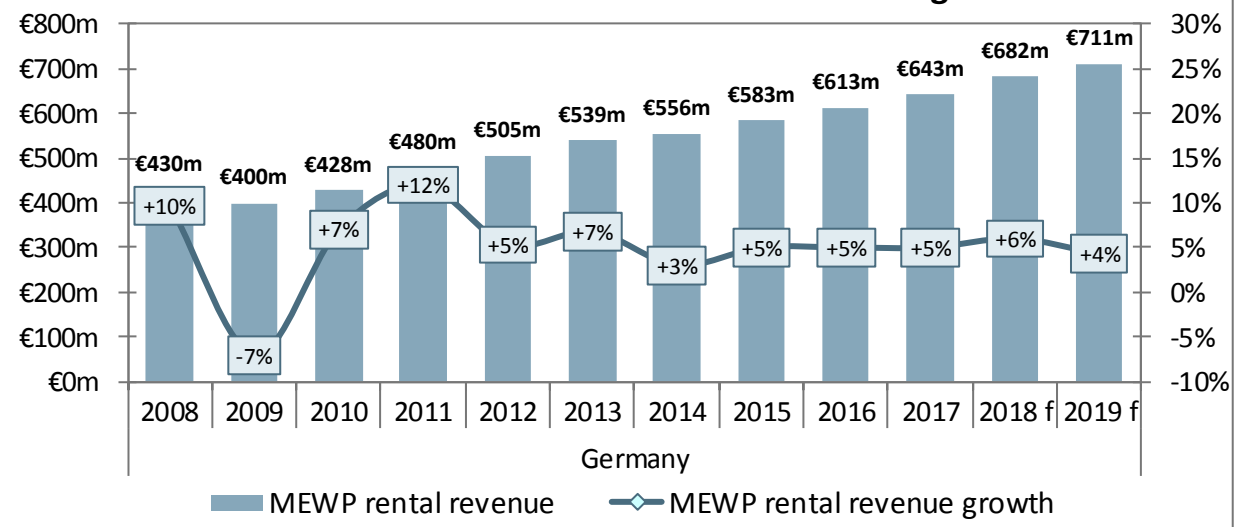


- MEWP rental revenue increased continuously, driven mainly by fleet size growth. Total MEWP rental revenue is expected to exceed €700 million in 2019.
- Germany’s positive economic outlook and demand in the non-construction sector are fuelling the German MEWP rental market growth and promising future rental rate improvement.



The German MEWP rental market grew for the eighth year in a row in 2017 driven by a number of factors, such as favorable economic conditions and increasing demand for MEWPs, particularly in non-construction applications.

### MEWP rental revenue and MEWP rental revenue growth



Source: Ducker Worldwide for IPAF

- MEWP rental revenue growth highlights the positive development of this market over the years. In 2017, MEWP rental revenue grew by another 5%, similar to 2015 and 2016.
- MEWP rental revenue reached €643 million in 2017. Further strong growth is expected for 2018 and 2019. In 2019, total market value is expected to exceed €700 million.

### Cross-hire



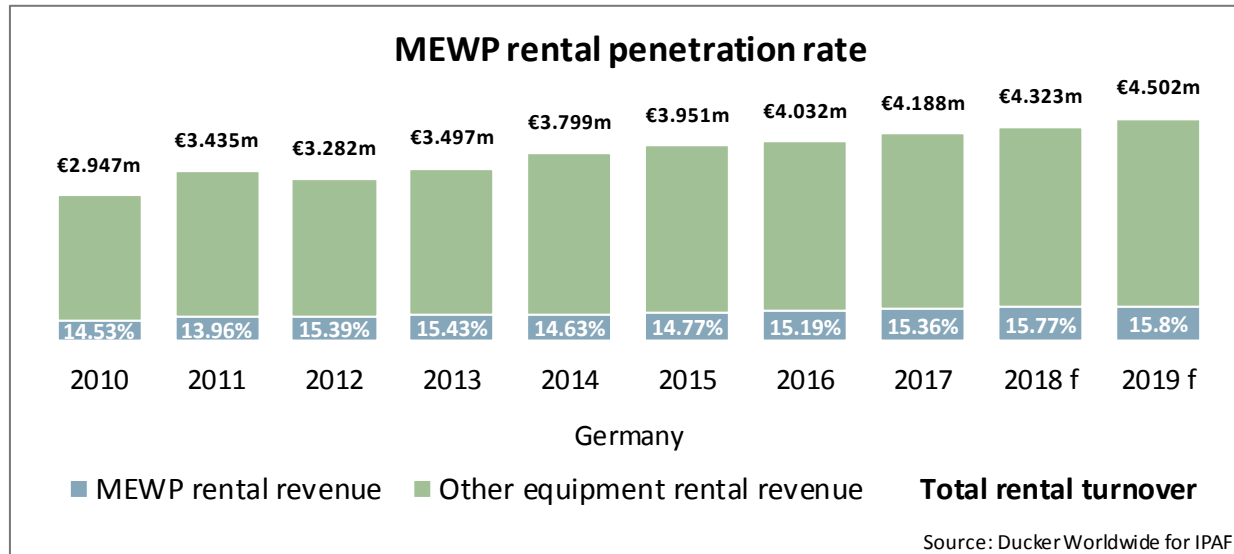
Source: Ducker Worldwide for IPAF

- MEWP rental revenue growth is fuelled by an overall positive economic situation in the country, and dynamic construction and non-construction sectors.
- The level of cross-hire increased to 11.2% in 2017 – similar to the 2014 level.



In 2017, MEWP rental revenue accounted for more than 15% of total German equipment rental revenue (source ERA).

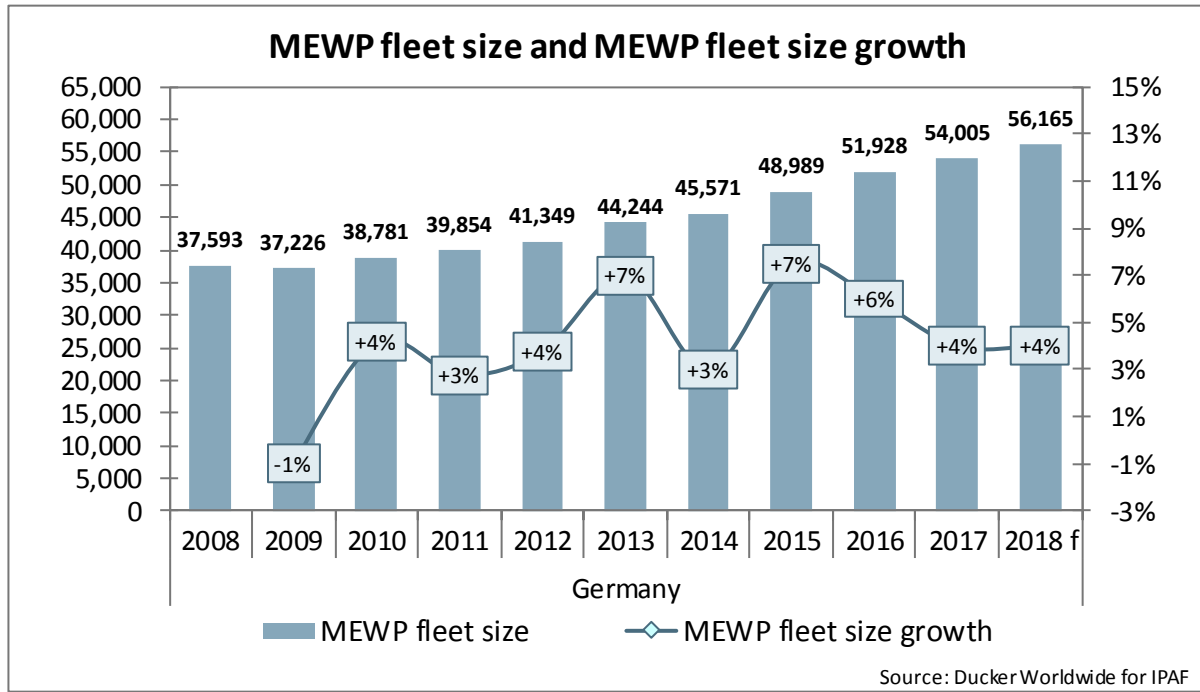
- The MEWP rental penetration level increases slightly over the years. It is expected to achieve around 16% level in 2019.
- The German total rental market and MEWP rental market are both expected to grow at similar rates over the next few years.



Source for Total Rental Turnover: ERA 2017 Report.

As forecast in last year’s report, the MEWP German fleet size continued to grow in 2017 by around 4%. This is one of the main pillars of market development.

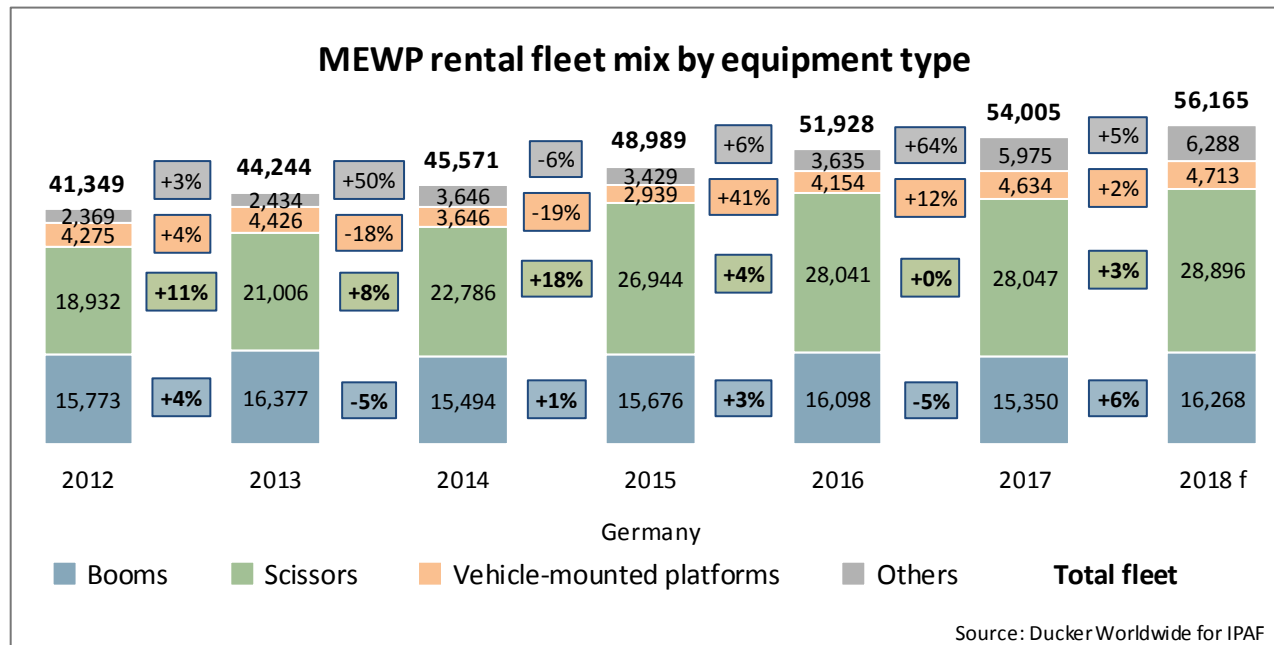
- As demand continues to increase and the market develops accordingly, MEWP rental companies are tending to expand their fleets.
- In 2017, total German fleet size reached 54,000 units.



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

Scissors are the main type of MEWP in the German market, accounting for more than half of the fleet mix.

- Electric scissors are particularly suitable for indoor non-construction applications, which are currently strong in the German market and thus driving demand and underpinning likely future growth.
- Nevertheless, all product categories are expected to benefit from the fleet size increase predicted in the next few years.



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

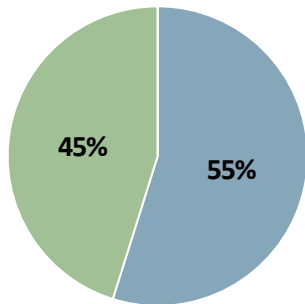
+X%      % unit growth, eg boom fleet decreased by 5% from 2016 to 2017.  
Others include: Vertical lifts, vertical masts, push-around, trailer mounted/towable.

In 2017, the German boom fleet evolved towards a larger proportion of articulated booms.

- Articulated booms are gaining ground against straight booms on the MEWP German market and now account for 60% of the booms fleet mix.
- Articulated booms are suitable for a large number of applications, and thus more demanded by a wider range of end-users.

**MEWP booms fleet mix by type – Germany – 2016**

Total booms fleet  
(16,098)



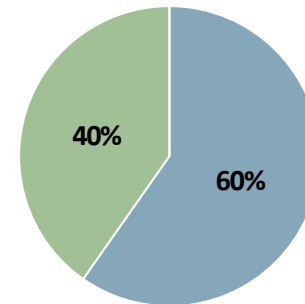
■ Articulated booms (8,828)

■ Straight booms (7,270)

Source: DuckerWorldwide for IPAF

**MEWP booms fleet mix by type – Germany – 2017**

Total booms fleet  
(15,350)



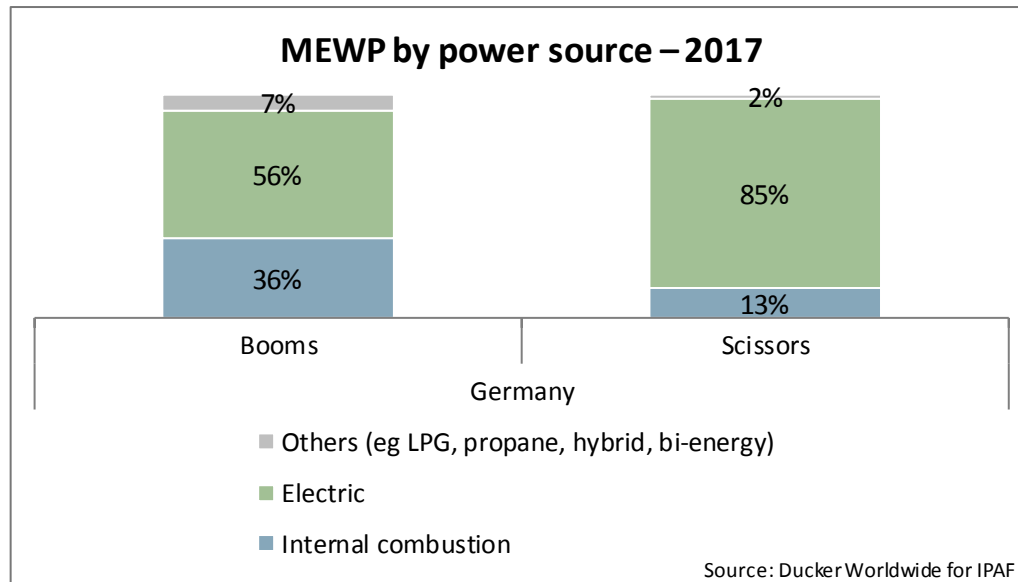
■ Articulated booms (9,168)

■ Straight booms (6,182)

Source: DuckerWorldwide for IPAF

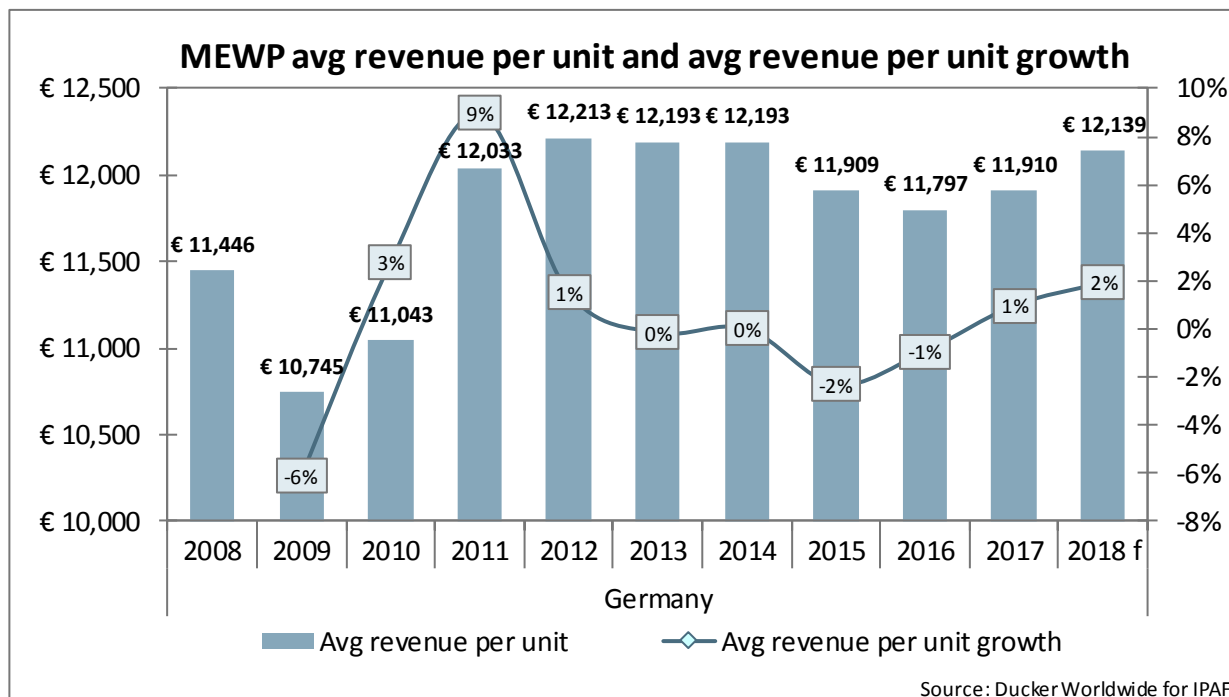
Electric equipment dominated both booms and scissors in Germany in 2017.

- The trend towards electric and hybrid equipment is expected to continue in Germany. Future emissions regulations are a strong driver to the increasing penetration of this type of power sources.



The average revenue per unit increased slightly for the first time in five years on the German MEWP rental market, since the good economic development and level of demand.

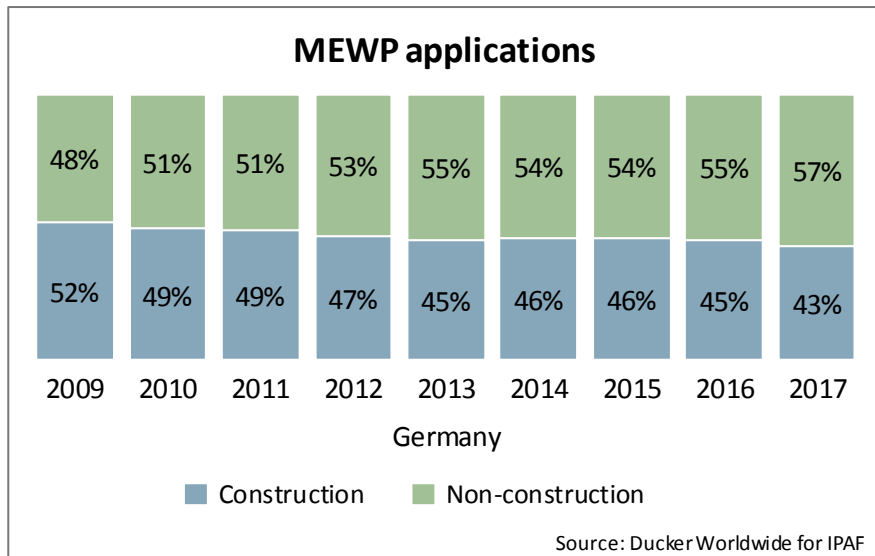
- The average revenue per unit increase by 1% in 2017 and is expected to increase again by approximately 2% in 2018.
- Average revenue per unit in 2018 is expected to get close to its highest historic level.



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

The trend towards non-construction applications in Germany continued in 2017 and this end-sector now accounts for 57% of total MEWP rental revenue. Germany is the country where the share of non-construction end-use is the highest.

- The non-construction end-sector is gaining ground due to relatively limited construction growth.
- The strong demand in the non-construction sector is driving rental rate increase, while rates tended to stagnate or decrease slightly in the construction sector.

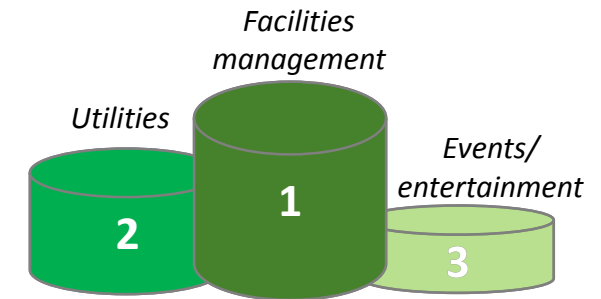


Share of rental revenues

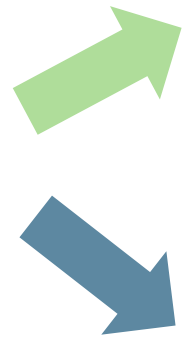
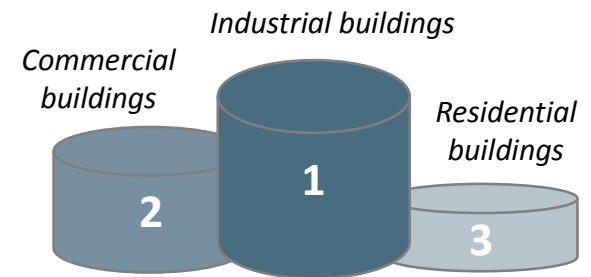
Non-construction includes industry, maintenance, cleaning, utilities, events.

Construction includes new build and renovation; including all types of buildings, also industrial.

**Main non-construction sub-sectors**

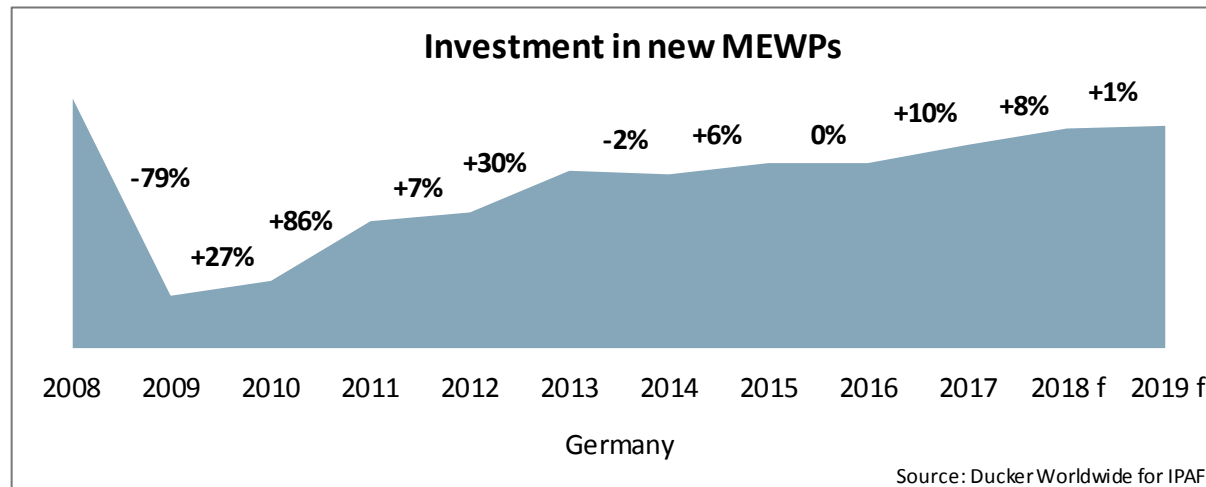


**Main construction sub-sectors**



Total investment in equipment purchases entered a new phase of growth in 2017, which is expected to be maintained over the next few years.

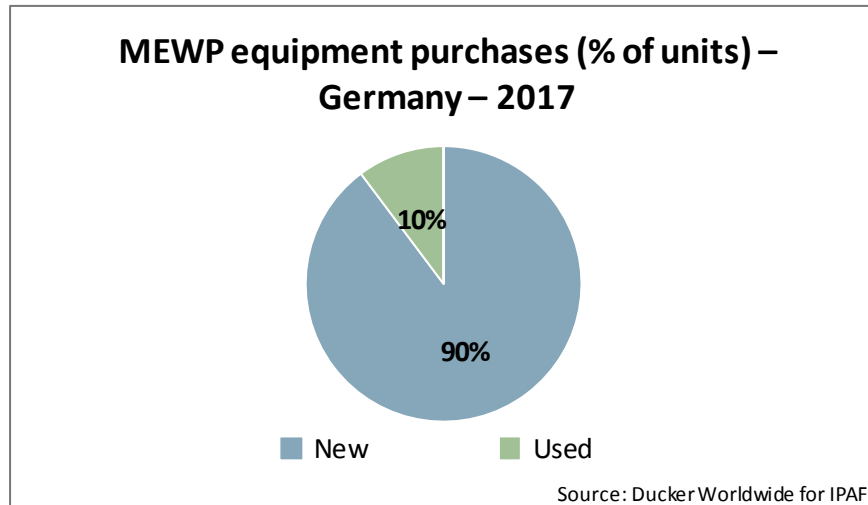
- The level of investment has started to increase again 2017, driven by fleet expansion and some renewal of older equipment.
- With the overall fleet development in the ten European markets under study, manufacturers are under pressure regarding their capacity to deliver machines on time: Order books are full and lead times are currently long, forcing rental companies to postpone investment until at least 2019.





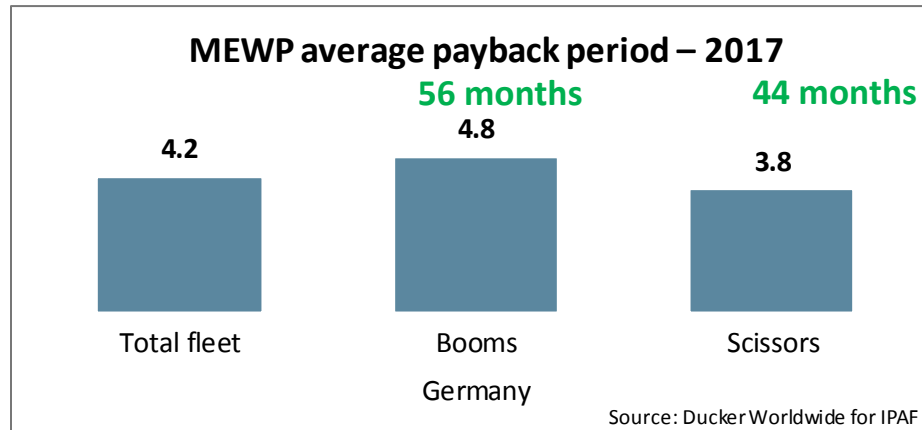
In 2017, the proportion of used equipment among German MEWP equipment purchases was 10%.

- MEWP rental companies prefer buying new equipment.
- Nevertheless the longer lead times in equipment delivery from manufacturers while the market is currently developing quickly can lead some rental companies to buy used equipment due to their earlier availability.



In Germany, the average payback period for MEWPs was four years, two months in 2017.

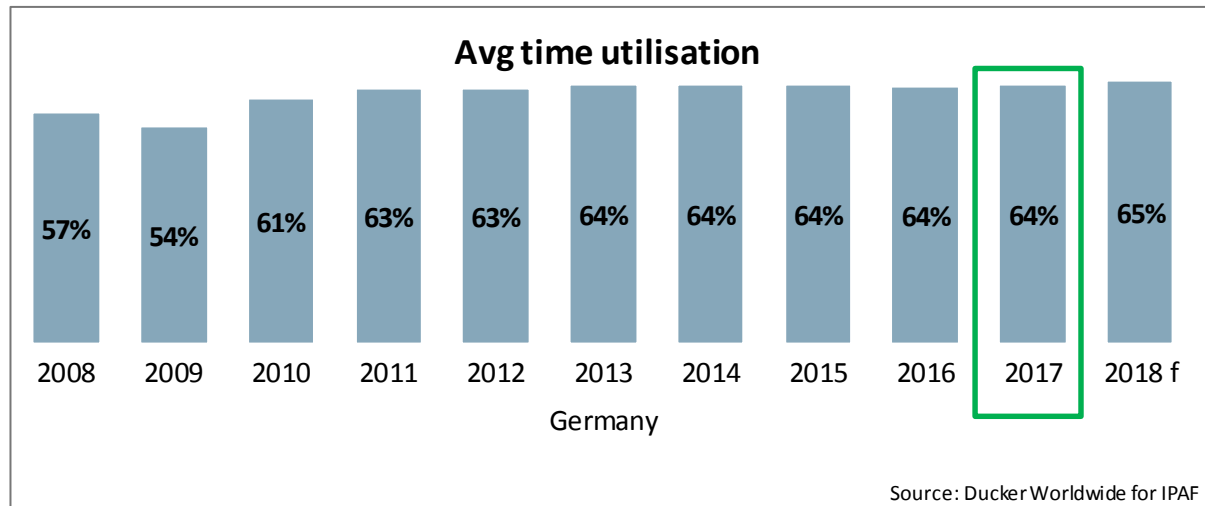
- Scissors traditionally have a shorter payback period than booms.
- Machines with lower rental rates (large diesel booms and scissors), currently have longer payback periods than other equipment categories.



**4.2 = 4 years and 2 months**

The utilisation rate remained stable at 64% on the German MEWP rental market.

- Scissors currently have a higher utilization rate than booms, being more widely demanded on the market, driven by non-construction, indoor applications.
- In 2018 utilisation rate is expected to increase for the first time in five years up to 65%, due to the positive market outlook and increasing demand from the non-construction sector.



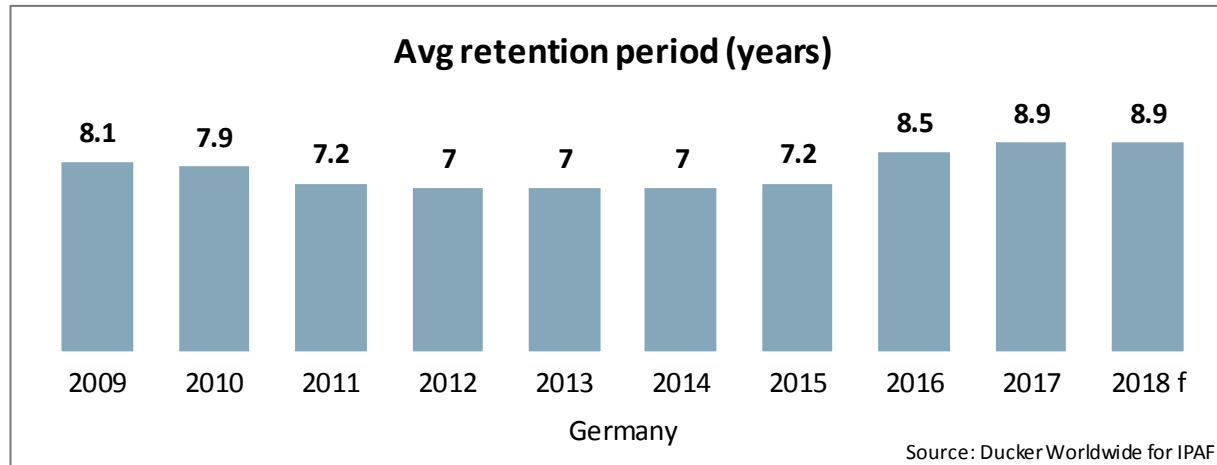
Scissors: 66%

Booms: 58%

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

In Germany, the retention period increased slightly in 2017 and is now close to nine years.

- Delays in delivery lead-times for new equipment may lead rental companies to keep some machines longer than expected.
- A ten-year retention period is considered as the maximum level that is likely to be reached.

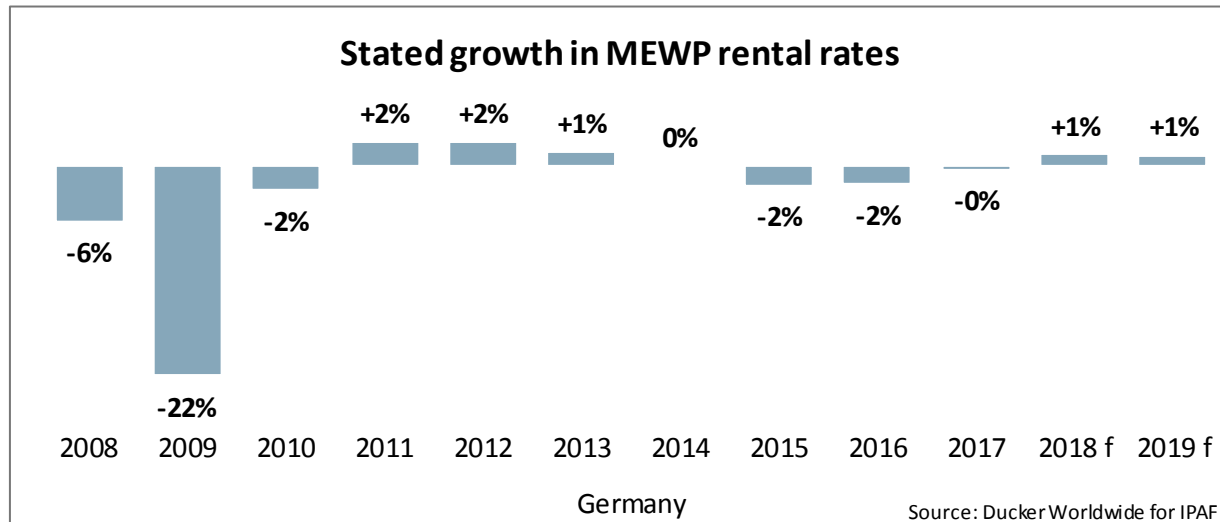


**8.9 = 8 years and 9 months**

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

In 2017, rental rates remained stable after several years of decrease. The dynamism of the non-construction sector is driving an increase in rates, balanced by falling rates in the construction sector.

- In Germany, a gap is reported concerning rental rates between construction and non-construction sectors.
- Intense competition in the construction sector led to falling rental rates over the past few years.
- In the non-construction sector, increasing demand for MEWPs owing to safety and is driving rental rate increases.
- In 2018 and 2019, rental rates in Germany are expected to increase around 1% per year, thanks to overall favorable market conditions.



# A PERSPECTIVE FROM THE MANAGING EDITOR OF *INTERNATIONAL RENTAL NEWS* IPAF Powered Access Rental Market Report 2018 – GERMANY

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DUCKER WORLDWIDE

- Germany has become almost a byword for economic stability. Of course it is not immune from economic cycles, but its industrial strength and manufacturing success have created a platform from which its construction and rental industries have been able to thrive.
- And thrive is what they did in 2017: Even by its own high standards it was an “exceptional” year for the rental and aerial platform industries, according to bbi, the German trade association for access, rental and equipment distributors. Its annual member survey concluded that the aerial platform rental sector enjoyed 5.5% growth last year and the survey is forecasting still respectable growth of around 4% this year.
- The European Rental Association’s estimates and forecasts for the entire rental market (excluding cranes and non-operated plant), are more modest, but still at the top end in Europe. It estimates growth in 2017 at 3.9% and its forecasts in mid-2017 were for growth of 3.2% and 4.1% in 2018 and 2019, respectively.
- That backdrop has led to a lively mergers and acquisitions in Germany, as in much of Europe. The headline deal had to be TVH’s acquisition of Gardemann from Loxam (Loxam having acquired it only months before as part of its Lavendon deal.)
- For Loxam it was a recognition that its focus lies elsewhere – where it believes it can win market leadership positions – while for TVH it will reinforce its leading place in the German access market adding Gardemann’s 3,600-unit fleet to its 6,000-unit Mateco operation. Mateco itself further bolstered its operation by acquiring both Kohler Arbeitsbühnenvermietung and Heintzelmann late in the year.

- Also notable was Riwal's expansion of its German business through the acquisition of AFI GmbH, adding around 1,300 machines and nine branches to its existing operation, giving it a total fleet of more than 2,000 units rented from 11 locations throughout Germany.
- However, it was a big rental name in Germany not known for its aerial platforms, Hamburg-based HKL, that is looking like a future player in the access industry.
- HKL is one of Europe's largest equipment rental businesses, with revenues in excess of €300 million, and very focused on earthmoving equipment. In recent years it has created a number of MEWP and telehandler rental centres, often located at its generalist stores. It opened the sixth specialist access location early in 2018 in Hamburg and Frank Seidler, HKL managing director, said its customers "everywhere" would benefit: "We want to transfer the model of specialised centres to other metropolitan areas in Germany."
- HKL's move is a statement: If you are in rental in Germany you have to be in access.



# APPENDIX

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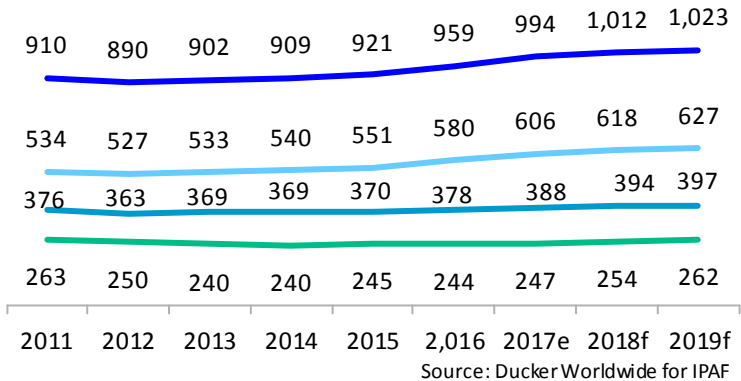


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The decrease in non residential construction is expected to be compensated for by a rise in residential construction and overall the German construction sector is likely to be relatively stagnant.

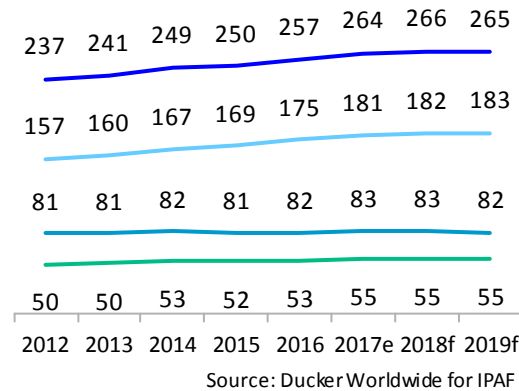
Compound annual Growth Rate (CAGR) 17-19 = 1.46%

Europe – Construction data



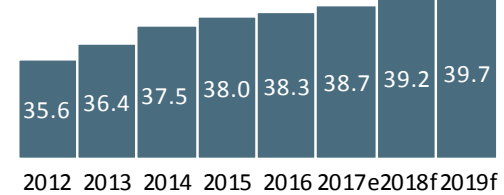
Compound annual Growth Rate (CAGR) 17-19 = 0.29%

Germany



Compound annual Growth Rate (CAGR) 17-19 = 1.23%

Germany



Construction put in place in billion Euros based on Euroconstruct 2017.

GERMANY GDP per Capita in thousand euros – estimates based on Euroconstruct 2017.

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering

# THANK YOU.

The International Powered Access Federation (IPAF) is a not for profit members organisation that promotes the safe and effective use of powered access equipment worldwide. Members include manufacturers, rental companies, contractors and users.

Offices in: UK, Brazil, China, Finland, France, Germany, Italy, the Netherlands, Singapore, Spain, Switzerland, UAE, USA.

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# COUNTRY REPORT – ITALY

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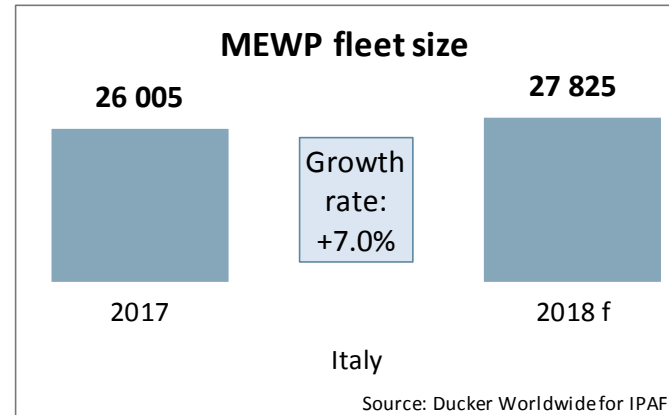
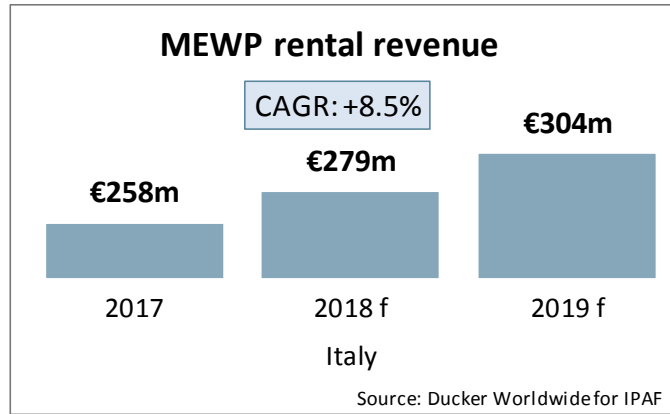
**THE EUROPEAN  
ASSOCIATION  
AWARDS 2018**

**BRONZE**  
Best Provision of Industry  
Information and Intelligence

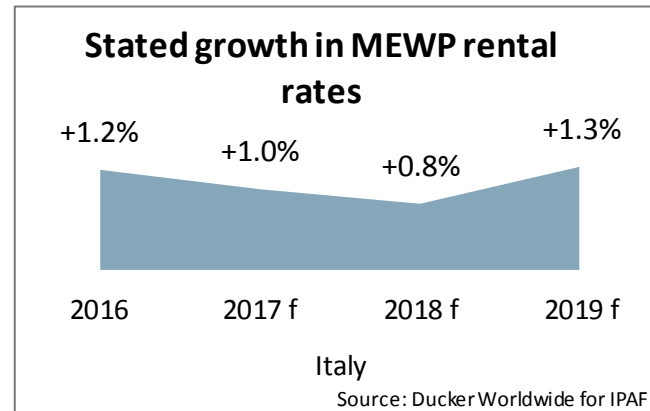
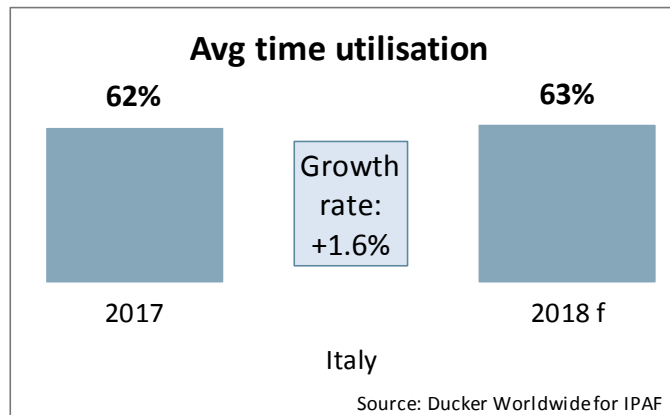


DUCKER WORLDWIDE

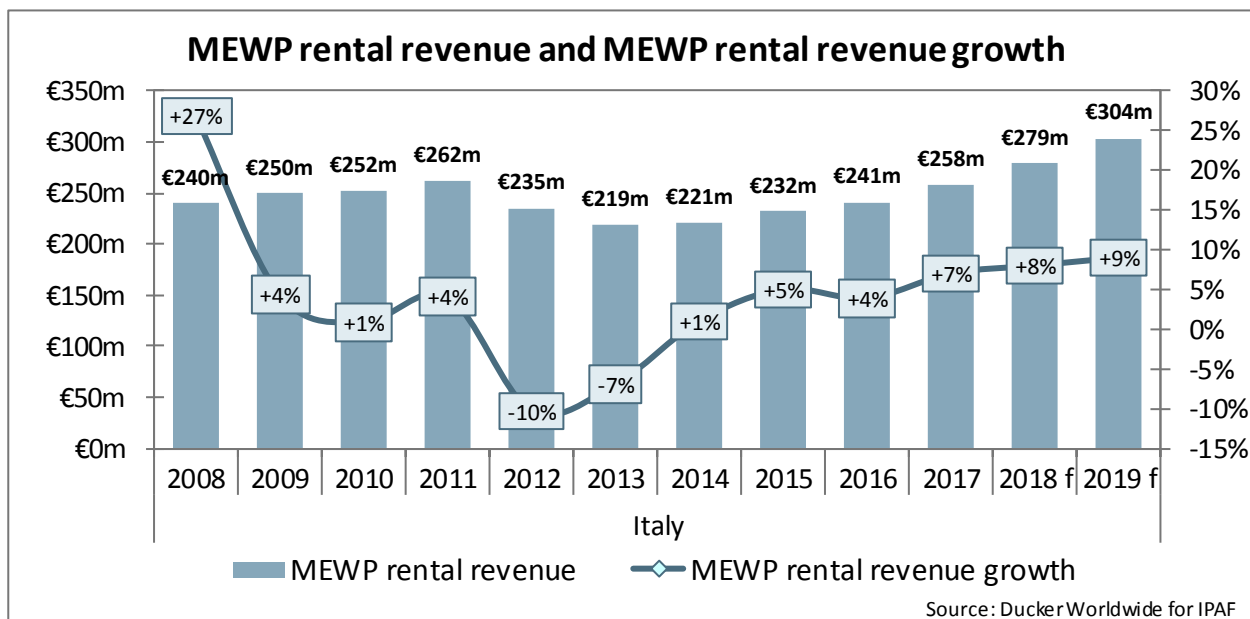
Despite a relatively low construction activity, the Italian MEWP rental market is among the European markets under study with the strongest expected growth rates over the next few years.



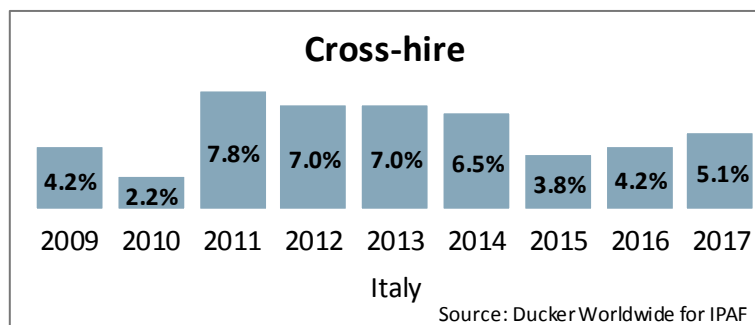
- Market recovery is now confirmed and the market looks to be entering a phase of rapid growth.
- Fleet size increase is the driver of revenue growth. Utilisation and rental rates are also rising, however more moderately.



The Italian MEWP rental market experienced more rapid revenue growth than had been forecast, highlighting the strength of the ongoing market recovery. Forecasts for 2018 and 2019 suggest this dynamic recovery is set to continue.

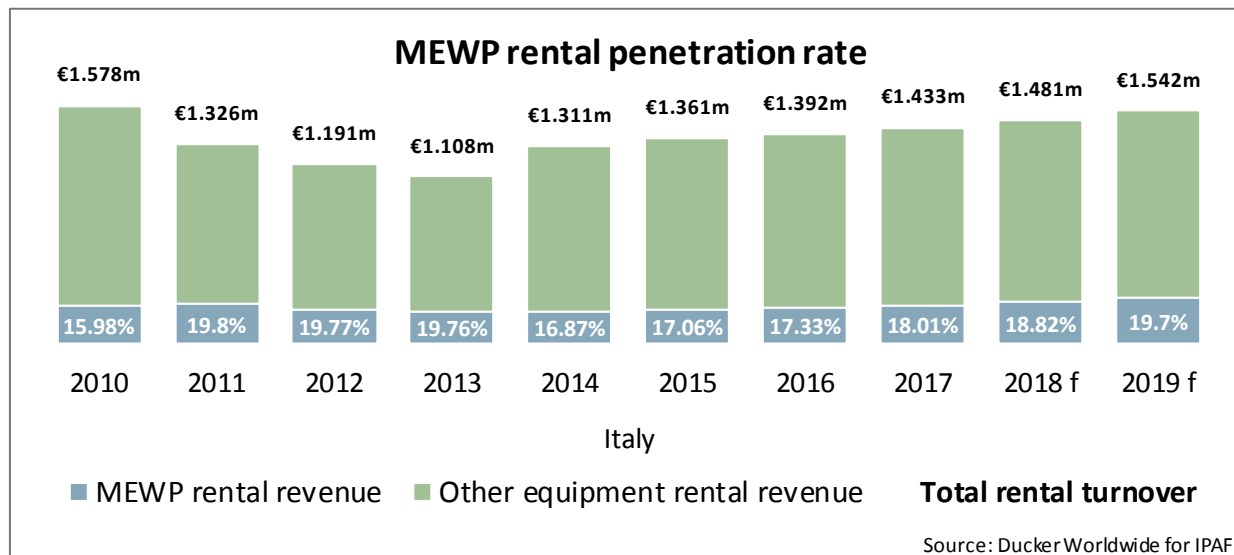


- In 2017, the Italian MEWP rental market grew at a rate not seen since before the 2009 downturn (7%).
- The Italian market is continuing its recovery and the outlook is very positive for the next few years. Higher revenue growth rates are expected in 2018 and 2019.
- Some large European players are currently entering the Italian market, while existing companies are tending to develop and open new branches.
- The level of cross-hire increased slightly in 2015, driven by demand : Larger companies are able to support smaller companies in their need for additional fleet.



MEWP rental penetration among total rental is growing rapidly. It reached a 18% level in 2017 and is expected to be almost 20% in 2019 (source ERA).

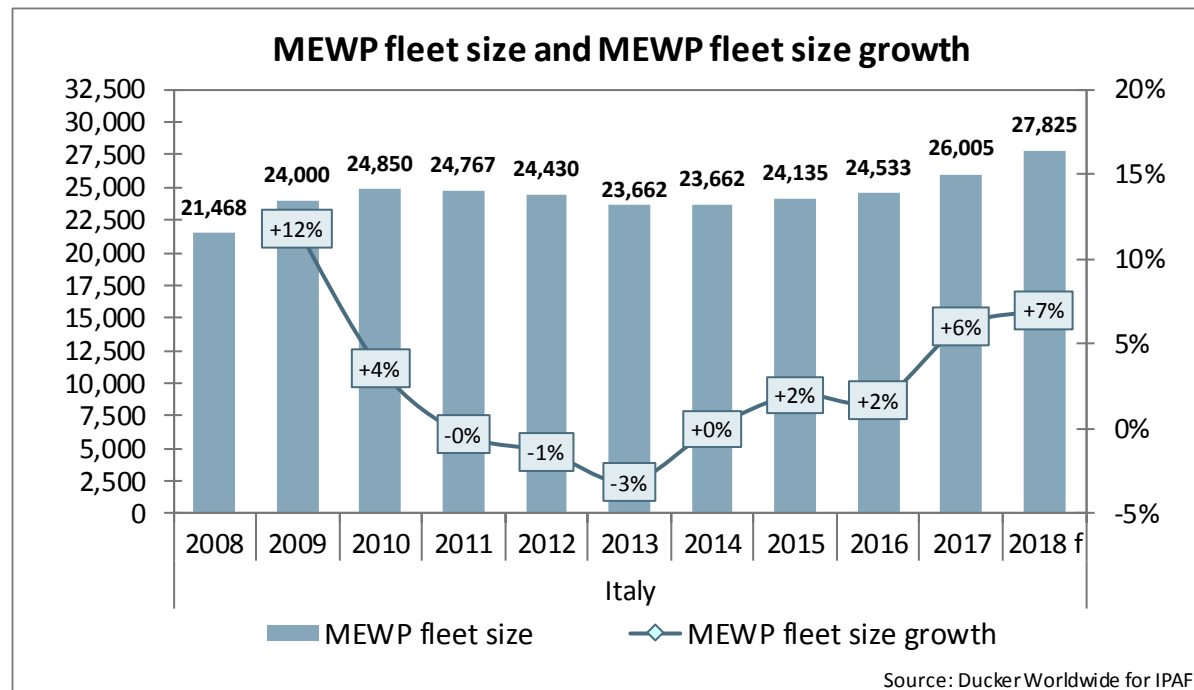
- As was indicated in last year’s report, the MEWP rental market is experiencing faster growth than the overall rental market.
- The MEWP rental market’s rapid growth is ensured by strong activity in the non-construction sector, while some other parts of the overall rental sector might be more dependent on construction activity.



Source for Total Rental Turnover: ERA 2017 Report.

As optimism returns to the Italian MEWP rental market, hire companies have entered a phase of fleet development. In 2016, the Italian MEWP fleet size grew by around 1,500 units; it is expected to grow further in 2018.

- Italian MEWP rental fleets have been growing since 2015. While initially the pace of expansion was moderate, in 2017 the Italian fleet grew by around 6%.
- As MEWP rental companies build their fleets to meet increasing demand, they invested in all equipment categories, but particularly scissors and articulated booms.
- Growth is forecast to continue throughout 2018, with the number of units expected to come reach up to 28,000 machines by the end of the year.

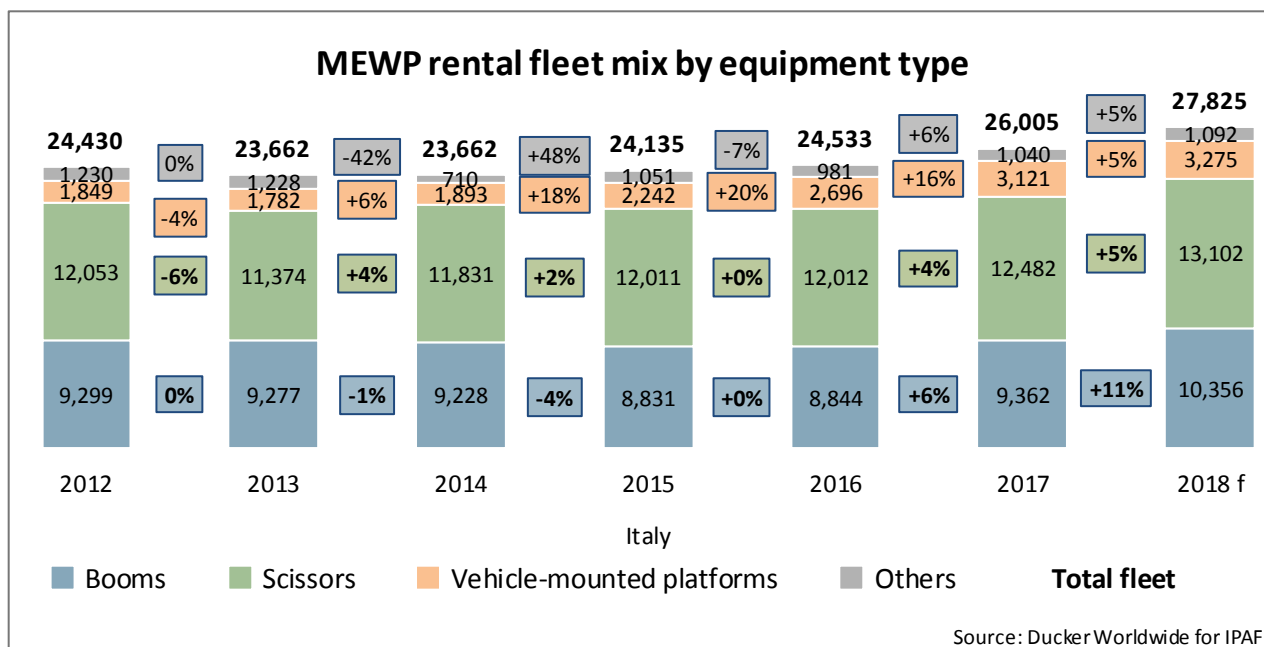


*Note: Included are powered access lifts: all booms, scissor lifts and vertical masts  
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers*



The ongoing Italian MEWP fleet expansion is across all equipment categories, and as a result to remain unchanged as the fleet continues to grow in the coming years.

- Investment in scissors is mainly targeted on smaller equipment (4-5m) with electric power sources, which are able to work in a variety of applications, especially in non-construction sectors (maintenance, logistics etc...)



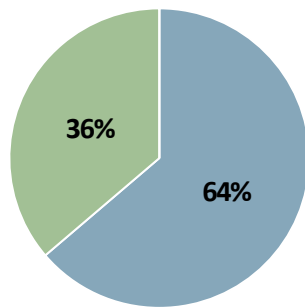
Note: Included are powered access lifts: all booms, scissor lifts and vertical masts  
 Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers

+X% % unit growth, eg boom fleet increased by 6% from 2016 to 2017.  
 Others include: vertical lifts, vertical masts, push-around, trailer mounted/towable.

Articulated booms are the dominant equipment type in the Italian boom market. Articulated booms are valued for their versatility and represent a safe and efficient equipment choice for end users.

**MEWP booms fleet mix by type – Italy – 2016**

Total booms fleet  
(8,844)



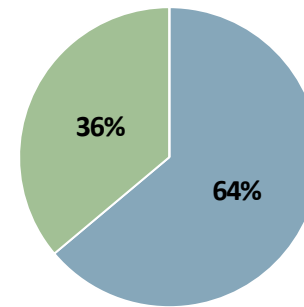
■ Articulated booms (5,638)

■ Straight booms (3,206)

Source: Ducker Worldwide for IPAF

**MEWP booms fleet mix by type – Italy – 2017**

Total booms fleet  
(9,362)



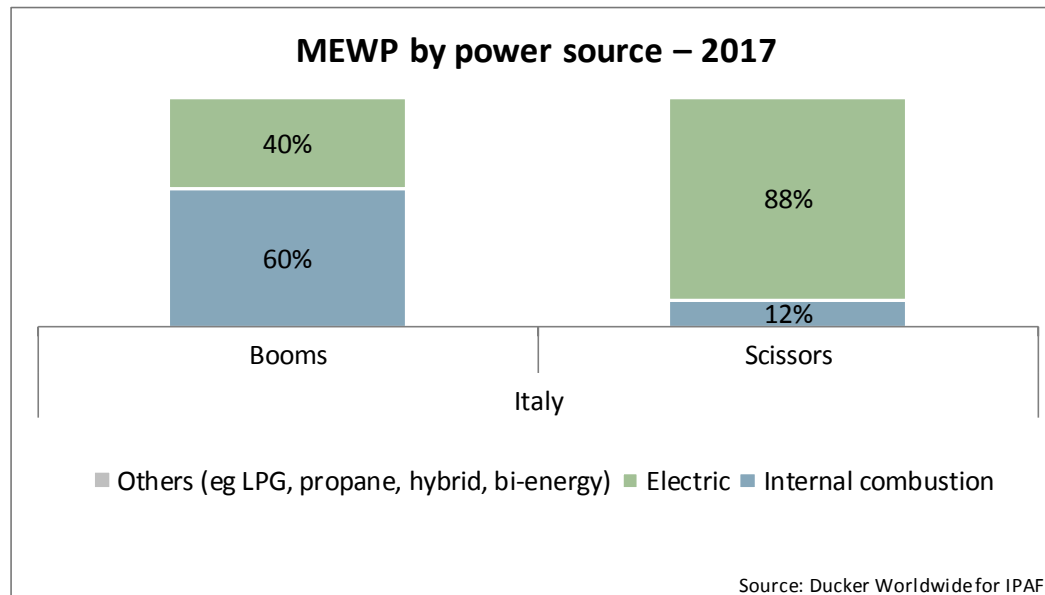
■ Articulated booms (5,981)

■ Straight booms (3,381)

Source: Ducker Worldwide for IPAF

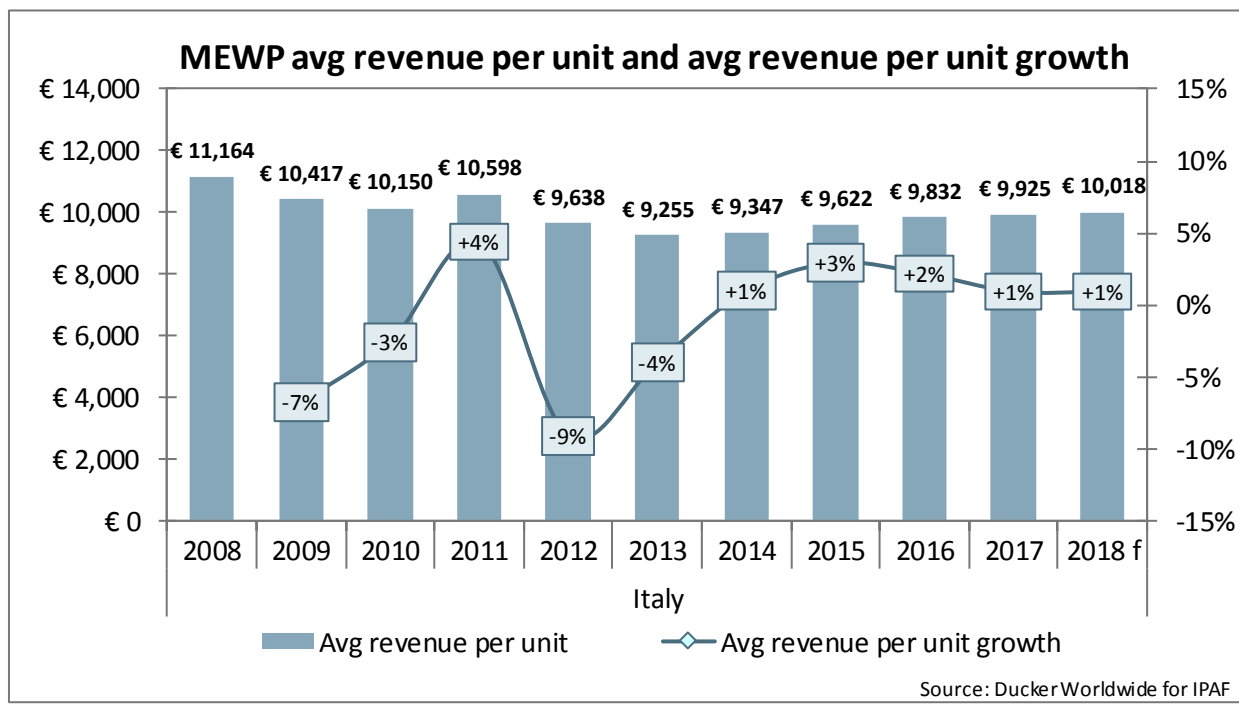
Electric is the dominant power source for scissors segment; it is particularly suited for non-construction applications inside buildings. For booms, internal combustion engines remain the dominant power source.

- Fleet power sources are increasingly moving towards electric equipment.
- The Italian MEWP rental market is progressively evolving towards adopting electric and hybrid equipment.



The average revenue per unit grew for the fourth year in a row, though at a more moderate pace than over the previous few years.

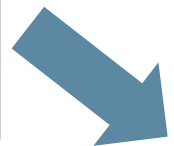
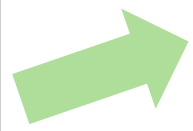
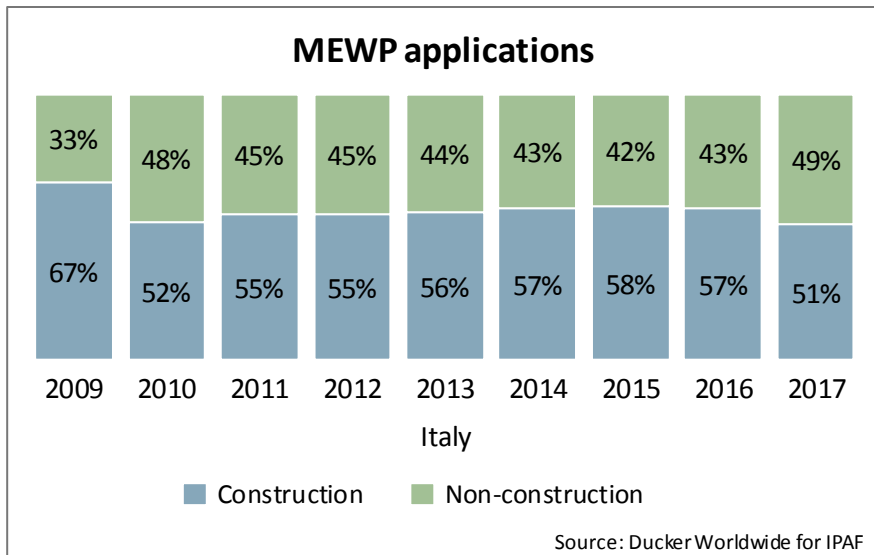
- Italian market revenue growth is predominantly being driven by fleet expansion. As utilisation and rental rates remain stable, average revenue per unit is increasing but only at a moderate 1% annually.
- Average revenue per unit is expected to exceed €10,000 in 2018.



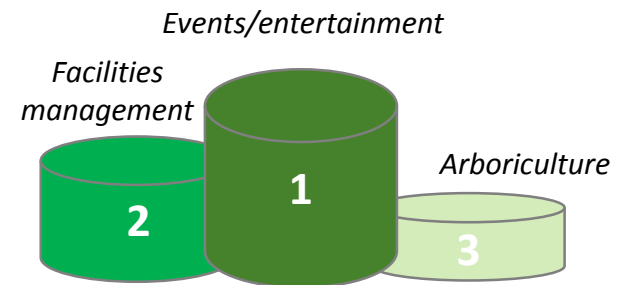
*Note: Included are powered access lifts: all booms, scissor lifts and vertical masts  
 Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers*

Last year’s report identified that MEWP rental portfolios were developing in order to better serve non-construction demand, and this continued through 2017. The Italian construction sector’s grew slowly, meaning there were better rental rates and growth opportunities in other sectors.

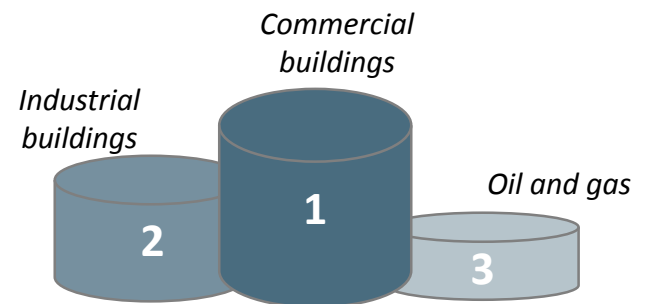
- Key non-construction sub-sectors include the event/entertainment and facilities management. Rental in these sectors was reported as growing strongly and offering attractive opportunities for MEWP hire.



### Main non-construction sub-sectors



### Main construction sub-sectors



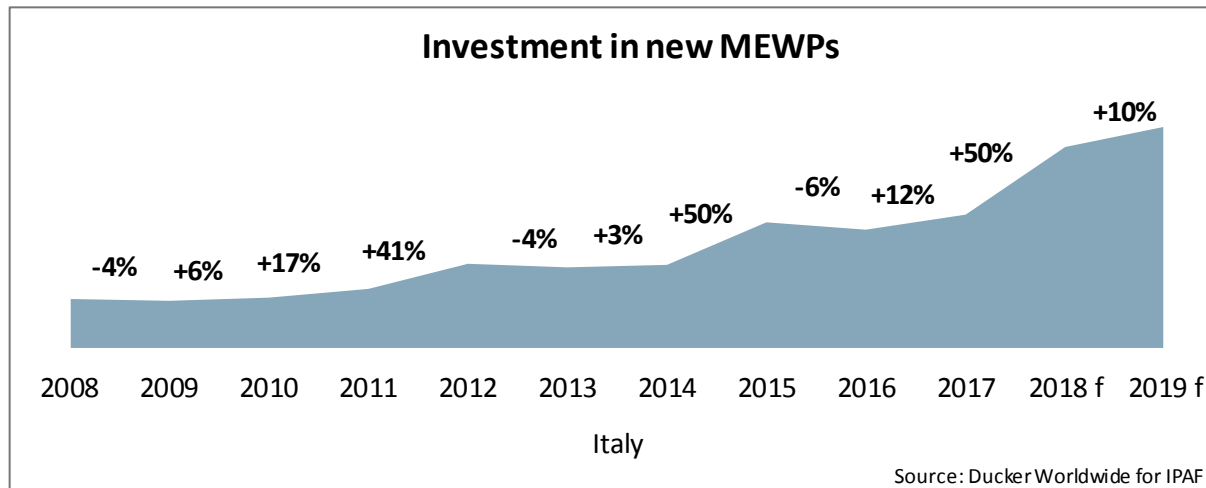
#### Share of rental revenues

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

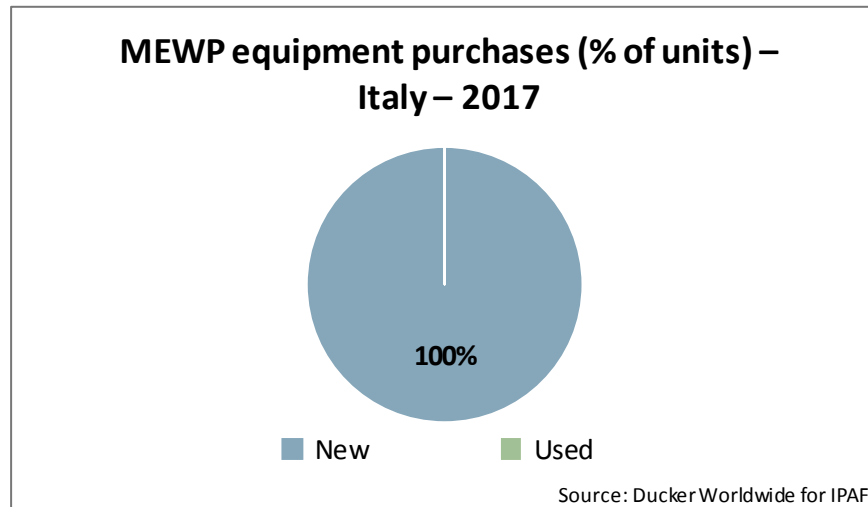
Construction includes new build and renovation; including all types of buildings, also industrial.

After maintaining a relatively cautious attitude in 2016, Italian MEWP rental companies are now considering investing in equipment replacement more bullishly in the next few years.

- Investments are expected to take off in 2018 and 2019 for two main reasons: Though rental companies have tried to renew their fleet constantly, some older machines still need to be replaced; in addition fleet evolution towards electric equipment is costly and requires higher investment.

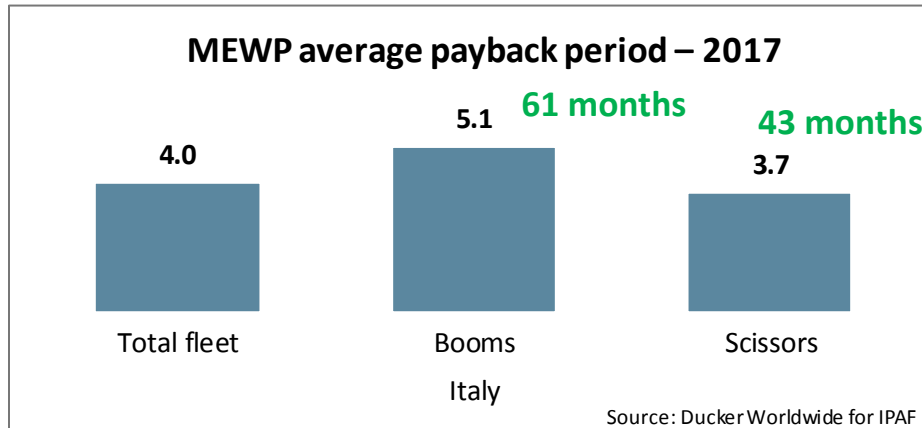


As part of the fleet renewal and expansion strategy favoring the latest electric or hybrid machines, only new equipment was reported to be purchased by MEWP rental companies in Italy.



Similar to last year’s results, the average MEWP payback period remained stable, at around four years.

- Despite strong competition in the scissors rental market, rates rose for electric equipment and demand is solid. As a result, the payback period is shorter for scissors than for booms.

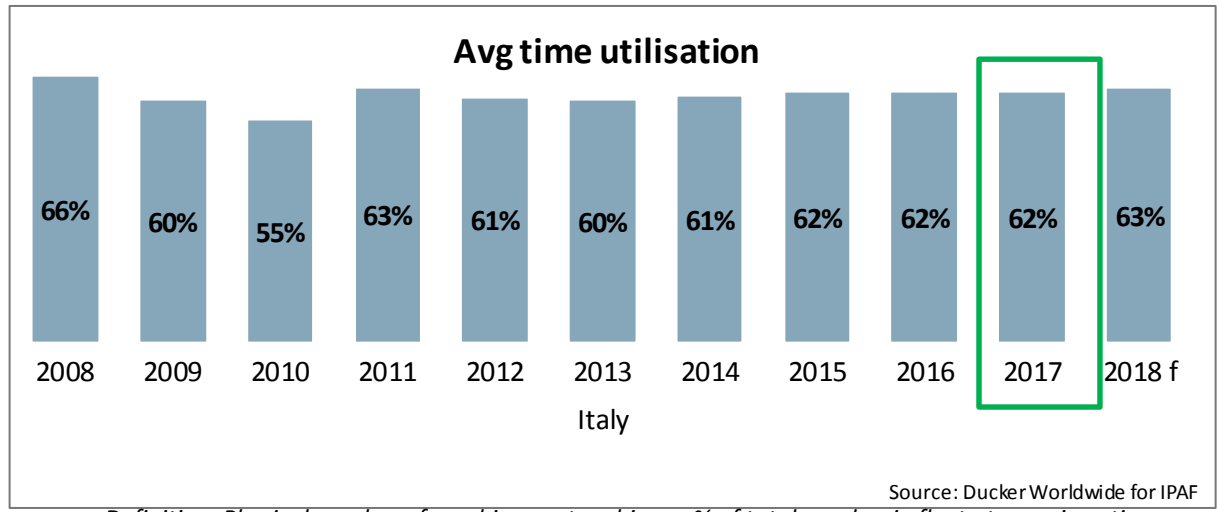


**4.0 = 4 years and 0 month**



As forecast in last year’s report, utilisation rate changed little year-on-year in the Italian MEWP rental market. In 2017, it remained similar to its 2016 level at 62%.

- MEWP rental companies’ strategy is oriented towards fleet expansion. Most reported they did not plan to seek a significant uplift in their utilisation rate over the coming years.
- Typically, the demand for scissors sometimes reaches the upper end of the ideal utilisation rate (up to 75%), anything above this leads to difficulties in adequately maintaining and turning around rental equipment.

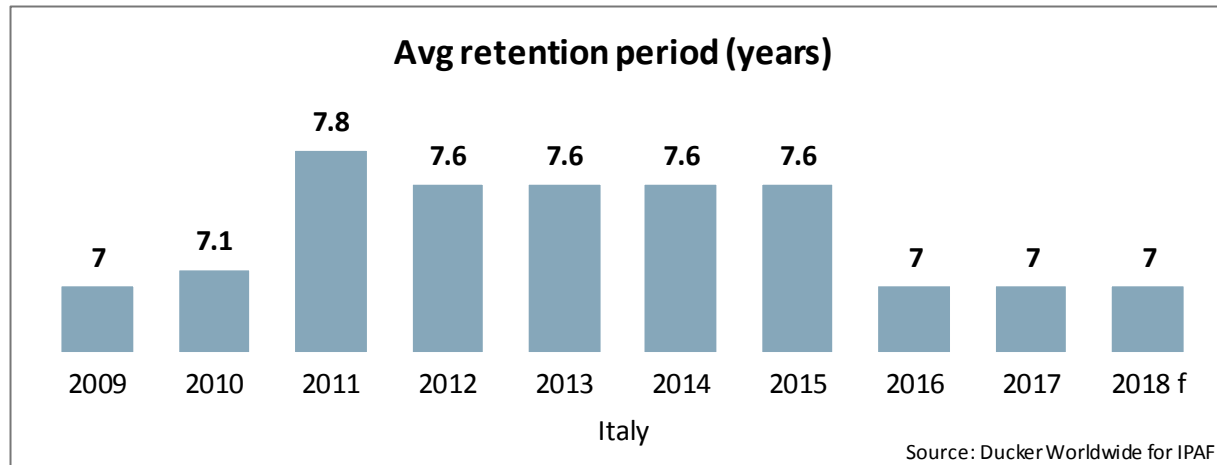


**Scissors: 65%**  
**Booms: 60%**

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

While fleets are being renewed, the retention period hasn't changed significantly in the past couple of years and is steady at around seven years per unit. This is expected to remain unchanged through 2018 also.

- The average Italian MEWP retention period is stable at around seven years in Italy. The past couple of years have seen a move to new power sources and healthy fleet renewal, which has seen the average retention rate fall to its lowest level in a decade.

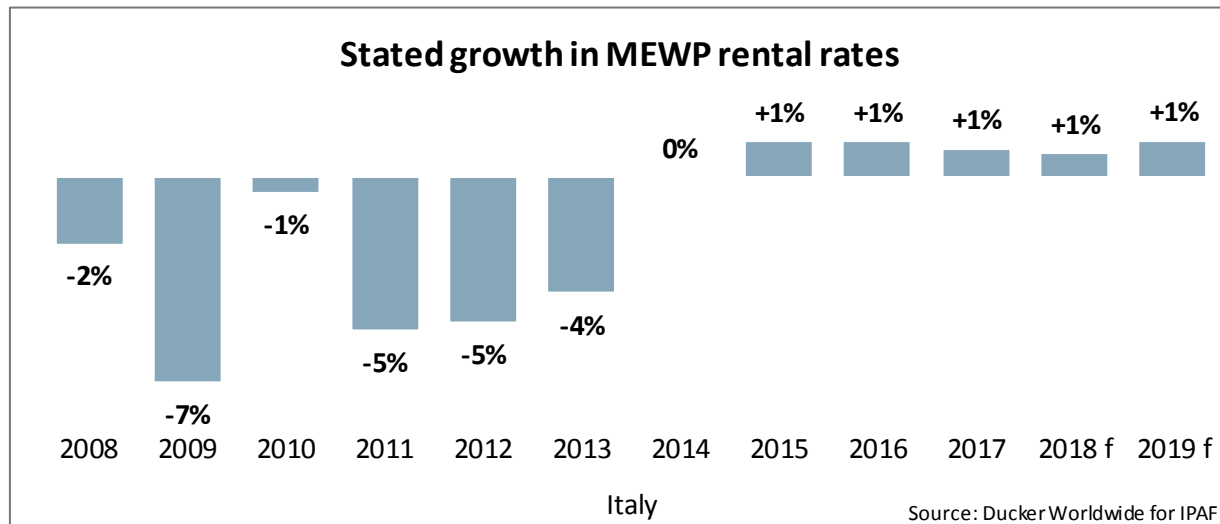


**7 = 7 years**

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

In 2017, MEWP rental companies were able to increase their rates slightly. Similar evolution is expected for the coming years, though increases will be moderate and gradual.

- Rental rates have been increasing slightly since 2015 after several years of deterioration.
- MEWP rental companies are aware that despite the ongoing market recovery, strong competition and new players entering the market prevent them from increasing rates significantly.



# A PERSPECTIVE FROM THE MANAGING EDITOR OF *INTERNATIONAL RENTAL NEWS* IPAF Powered Access Rental Market Report 2018 – ITALY

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DUCKER WORLDWIDE

- For years Europe’s biggest rental companies found it easy to resist the temptation to move into Italy. That changed significantly in 2017 with entry to the market by Loxam and Kiloutou, who have both joined Boels Rental as investors in Italy.
- In Loxam’s case it was well-known access rental specialist Nacanco that was acquired, giving it one of the Italian market leaders, with annual revenues of €27 million and 2,400 units in its fleet. The Giusto family will retain a 20% share of the business.
- Kiloutou, meanwhile, bought sister companies COFILOC and EURONOL, with 4,000 machines spanning access, earthmoving and other equipment. At the time Kiloutou said the deal gave it an inroad to “a market whose size and opportunities for growth make it a key location in Europe”.
- What has suddenly made Italy a key location? In part it relates to the international growth strategies of Kiloutou and Loxam; a move into what is a large, neighbouring market was inevitable at some point. Just as important, the timing coincides with a market recovery in Italy, of sorts.
- The downturn in Italy was not as prolonged or as deep as that in Spain, and neither has its recovery been quite so pronounced. But recovery it is, with the European Rental Association estimating 2017 growth at 2.9% in 2017 and forecasting a 3.4% increase this year before slightly accelerating in 2019. Sales of new construction equipment increased by 15% in 2017, according to Unacea, which is another very positive sign.
- Some renters in Italy are outperforming the market. For example, Mollo Nollegio reported its rental division saw revenue growth of 23% in 2017. It has 34 locations and opened three new branches in 2017, and it aims to add around 1,250 new machines to its fleet this year.

- How has the Italian market viewed the new involvement of two of Europe’s biggest players? Emanuela Pege, CEO of Venpa, one of the largest rental businesses in Italy, managed a positive response when interviewed by Italian magazine *Macchine Edili*: “The worst is over and we are also reassured by the fact that if the Italian market, as the recent acquisitions show, is considered interesting from abroad, it means that our more structured companies have become attractive. A good sign, for rental and for the country.”
- In fact, the new environment in Italy – with three of Europe’s major rental businesses now active participants – may have played a part in Venpa’s decision to merge with Edilrent. The two companies have previously cooperated, but this merger – as from 1 January this year – creates a much larger operation covering northern and central Italy and with 20 branches. It is not difficult to see this as a statement of intent to its new competitors.
- One interesting aspect of the Italian market is its heavy reliance on construction. According to the ERA, customers in construction represent around 70% of all rental revenues in the country, which is significantly higher than other European countries.
- You can imagine that the new entrants to the market - whether from France or the Netherlands – will be targeting more ‘industrial’, non-construction business. It will be good for everybody if they succeed.

# APPENDIX

## IPAF Powered Access Rental Market Report 2018 – ITALY

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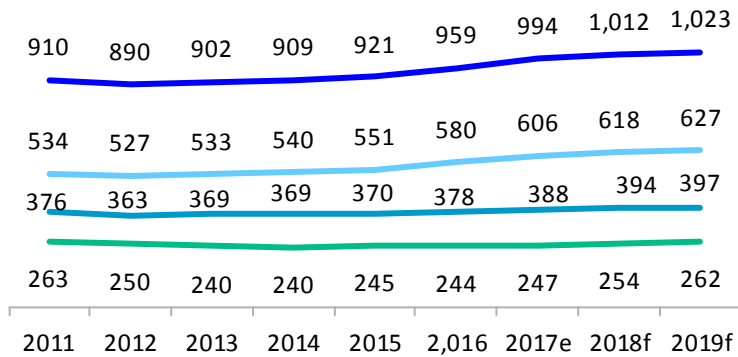


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The construction sector is growing, albeit slowly and modestly.

Compound Annual Growth Rate (CAGR) 17-19 = 1.46%

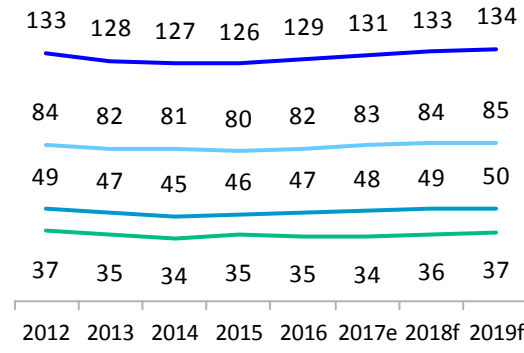
Europe – Construction data



Source: Ducker Worldwide for IPAF

Compound Annual Growth Rate (CAGR) 17-19 = 1.36%

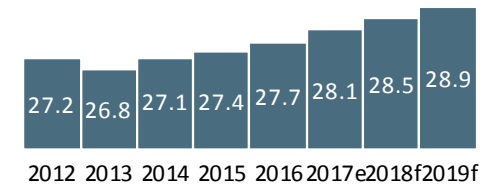
Italy



Source: Ducker Worldwide for IPAF

Compound Annual Growth Rate (CAGR) 17-19 = 1.41%

Italy



ITALY GDP per Capita in thousand euros – estimates based on Euroconstruct 2017.

Construction put in place in billion Euros based on Euroconstruct 2017.

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering



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# COUNTRY REPORT – THE NETHERLANDS

IPAF Powered Access Rental Market Report 2018 – Europe

*European Association Award-winner for Best Provision of  
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THE EUROPEAN  
ASSOCIATION  
AWARDS 2018

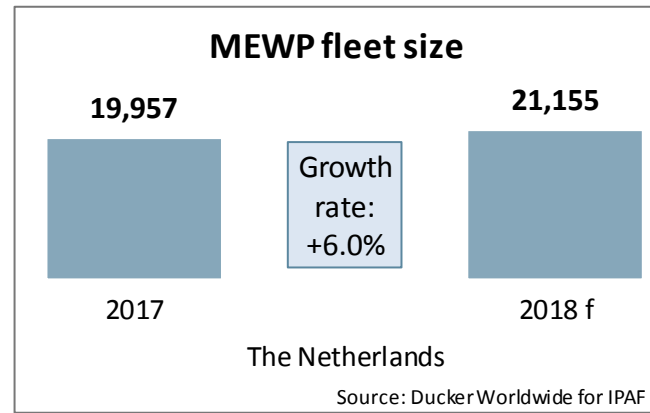
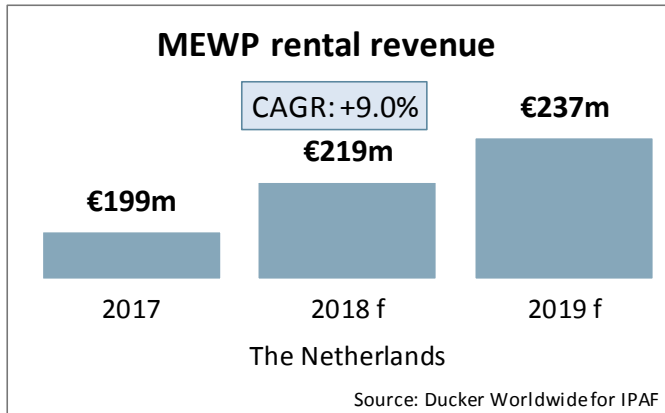
BRONZE

Best Provision of Industry  
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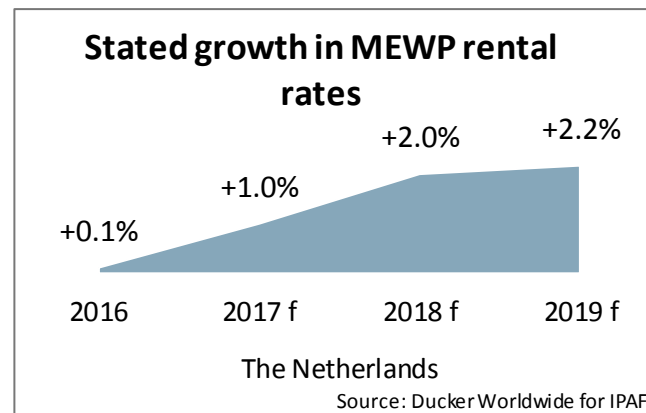
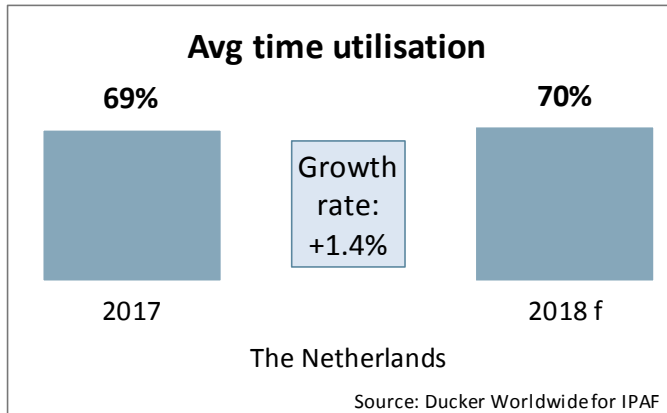


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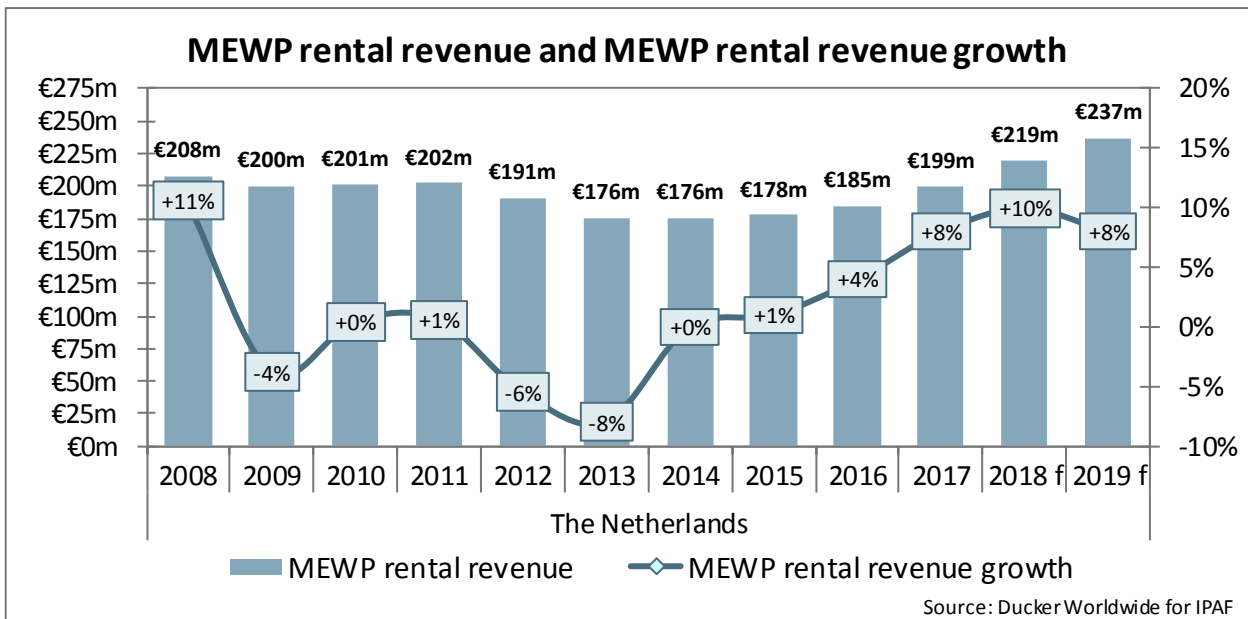
The Dutch MEWP rental market has entered a new phase of dynamic growth, with a positive indicators across the board.



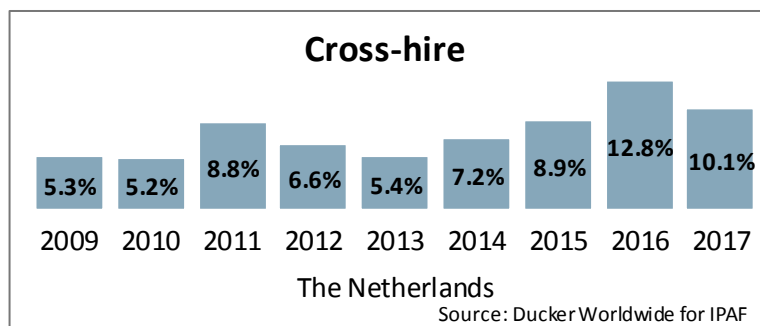
- The market recovery became established in 2017, and is expected to continue over the next few years.
- Optimism prevails as demand allows to push time utilisation and rental rates at higher levels.



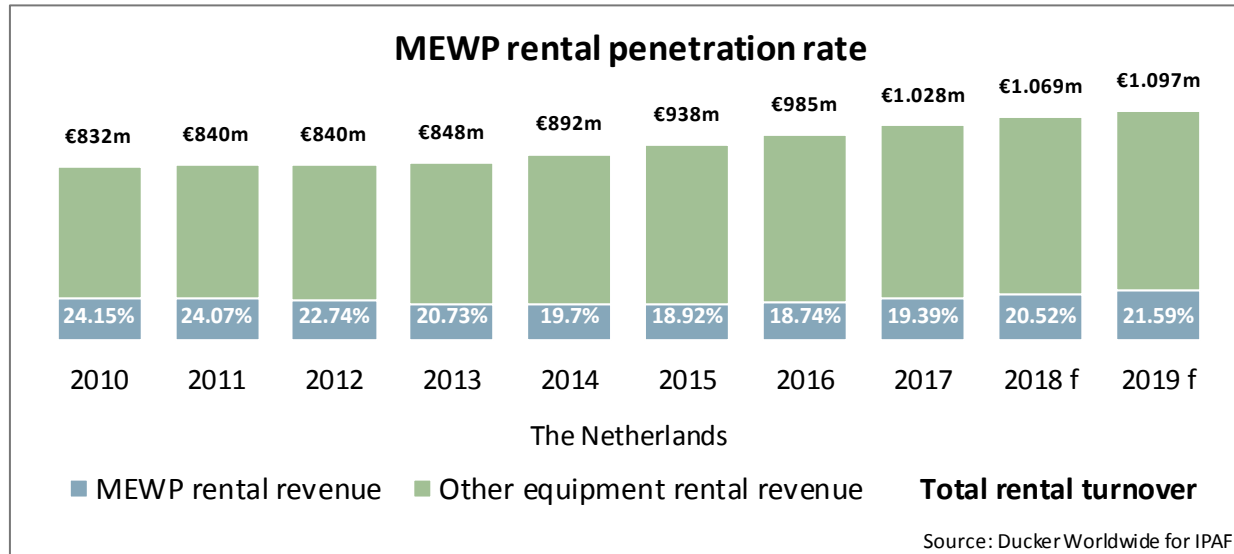
The MEWP rental market experienced strong growth in 2017, driven by an overall positive economic situation and good construction activity. Outlooks are positive for 2018, with a potential double-digit revenue growth.



- Dutch MEWP rental market growth was strong in 2017, even surpassing what macro-economic indicators suggested.
- The 8% revenue growth rate is driven by a recovery of the overall economy (GDP increase) and a very active construction sector, with numerous major projects expected in petro-chemical and other industrial sectors, as well as residential construction.
- The market is expected to continue to grow significantly over the next few years; it should exceed €200 million in 2018.
- With the sudden surge in demand, and despite companies' fleet expansion, rental companies had to maintain a high level of cross-hire in 2017.



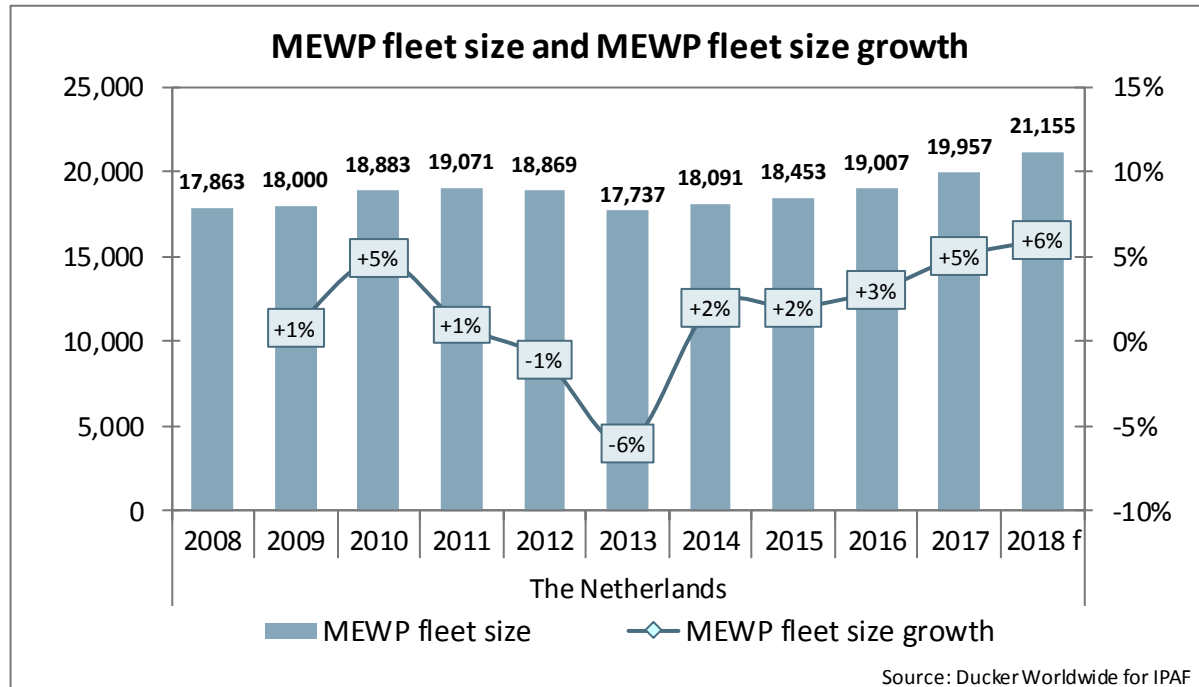
Both the MEWP rental market and the overall rental market experienced sustained growth in the Netherlands in 2017. MEWP rental penetration is starting to increase slowly again (source ERA).



Source for Total Rental Turnover: ERA 2017 Report.

In 2017, fleet size grew to an unprecedented level due to the increasing demand and optimistic outlook for the MEWP rental market. A similar trend is expected for 2018 with a fleet level exceeding 21,000 units.

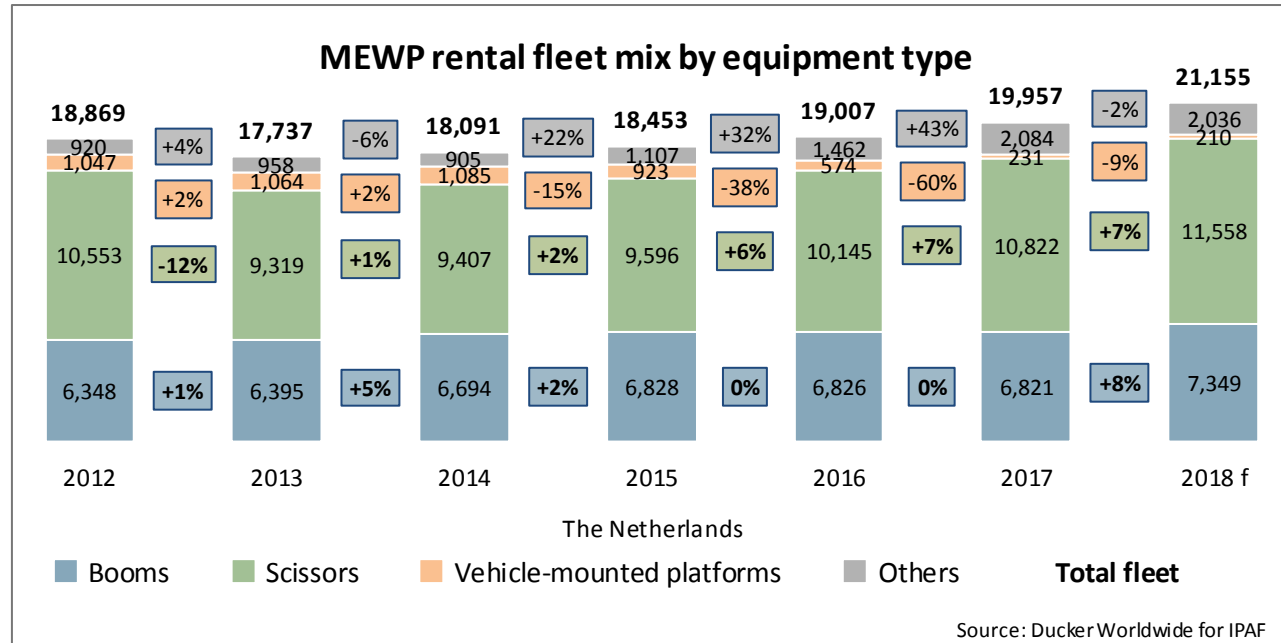
- Rental companies report a major trend towards fleet expansion to comply with increasing demand.
- Small scissors (3-12m high) are reported to be increasingly demanded in the market: They offer a much safer alternative to scaffolding as legislation becomes more stringent. They are regularly used in non-residential construction applications, for extension and renovation work.



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

As the Dutch MEWP rental fleet developed in 2017, scissors lifts category were the equipment type that gained most units.

- The scissors category accounts for the lion’s share of the Dutch MEWP rental fleet and rental companies are adding smaller units in particular to their fleets.
- Both main equipment categories (booms and scissors) are to make up the expanded fleets in relatively equal measure.



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

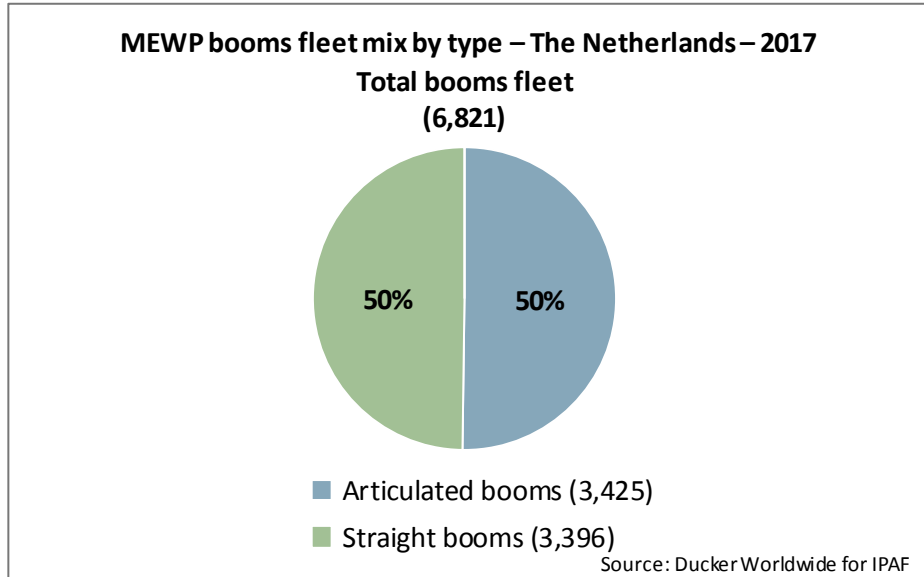
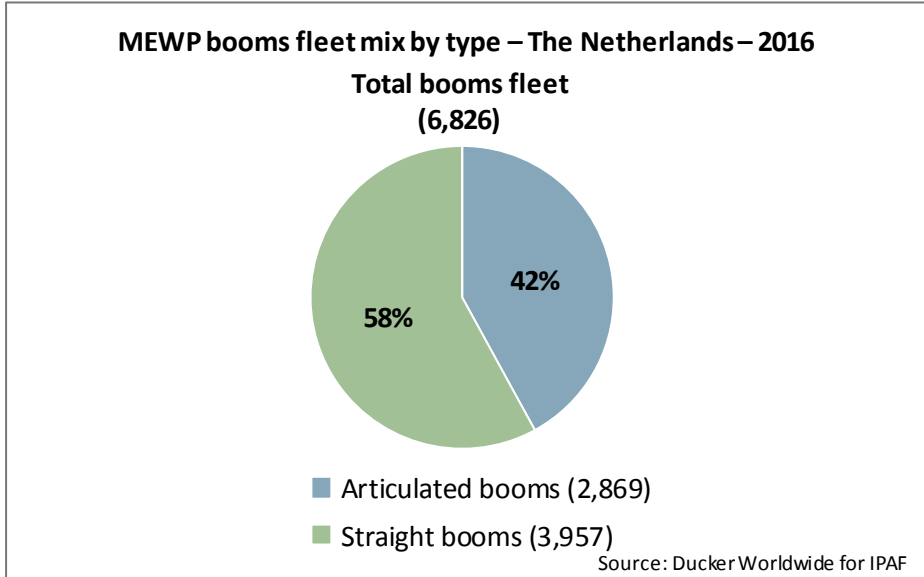
+X%

% unit growth, eg boom fleet increased by 7% between 2016 and 2017.

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

The Netherlands boom fleet is split roughly equally between straight and articulated booms. Articulated booms are being added to fleets in greater number than straight booms, however.

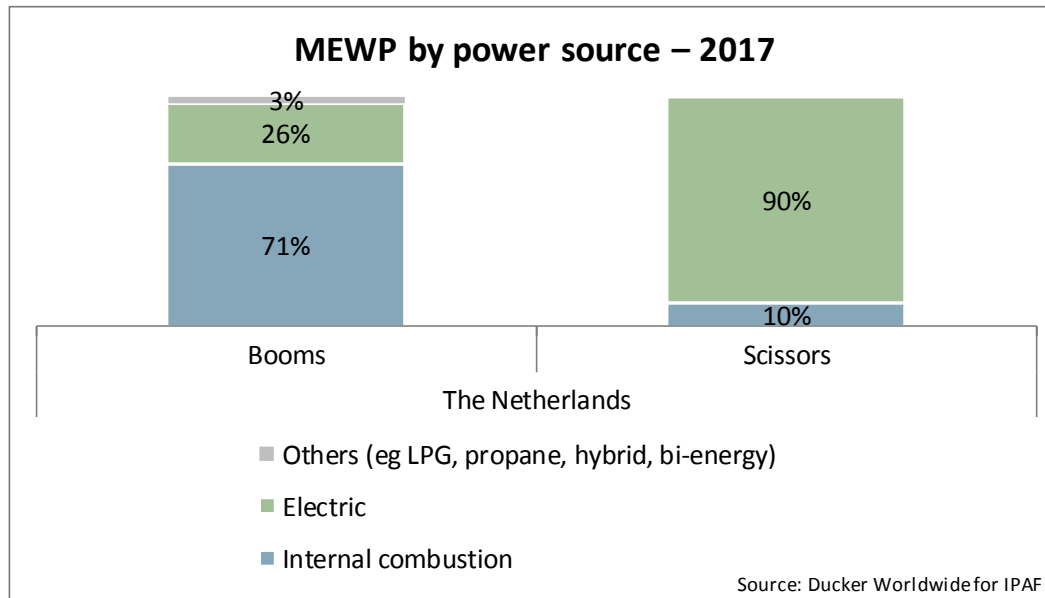
- As rental companies renewed and developed their fleet size in 2017, they tended to invest more in articulated booms than in straight ones: Articulated booms offer a good versatility and can be used for a variety of applications.





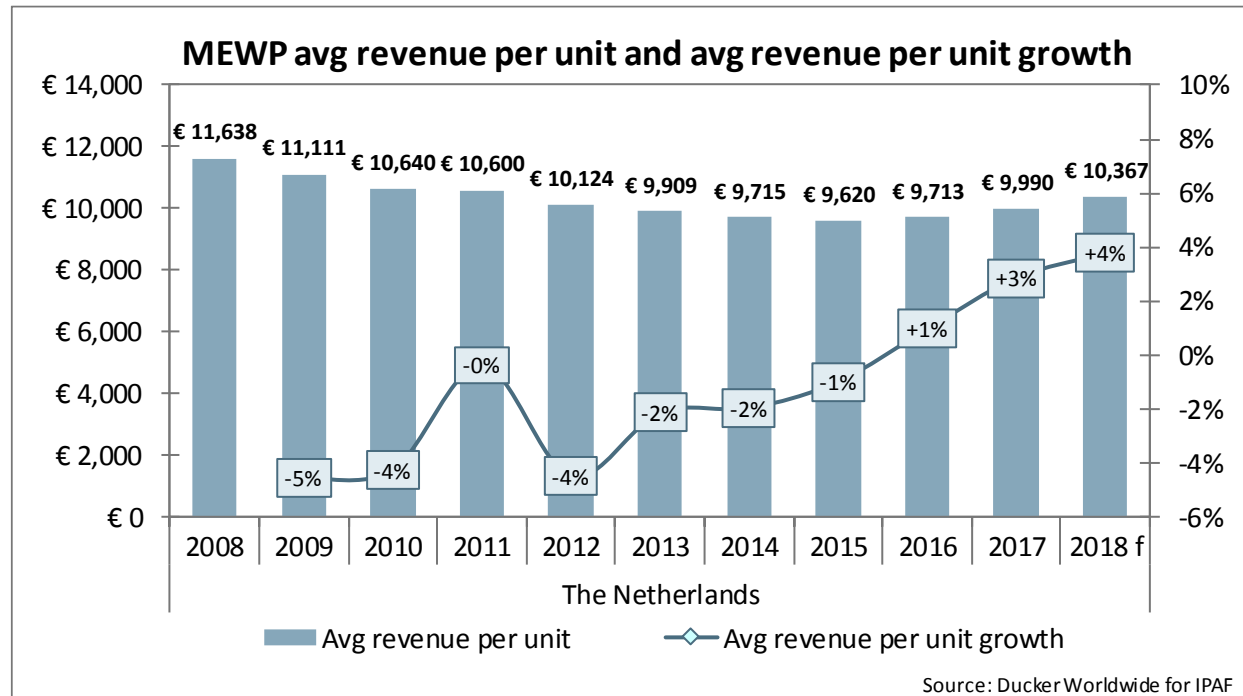
Electric and hybrid equipment is expected to continue to grow in popularity among the Dutch MEWP rental fleet. While booms are predominantly internal-combustion-engined machines, scissors are mainly electric, allowing for indoor applications.

- Electric equipment is gaining ground among the Dutch MEWPs rental fleet. Their share is increasing every year.
- Among the 10 European countries under study, the Netherlands is the country where the share of electric scissors is the highest.



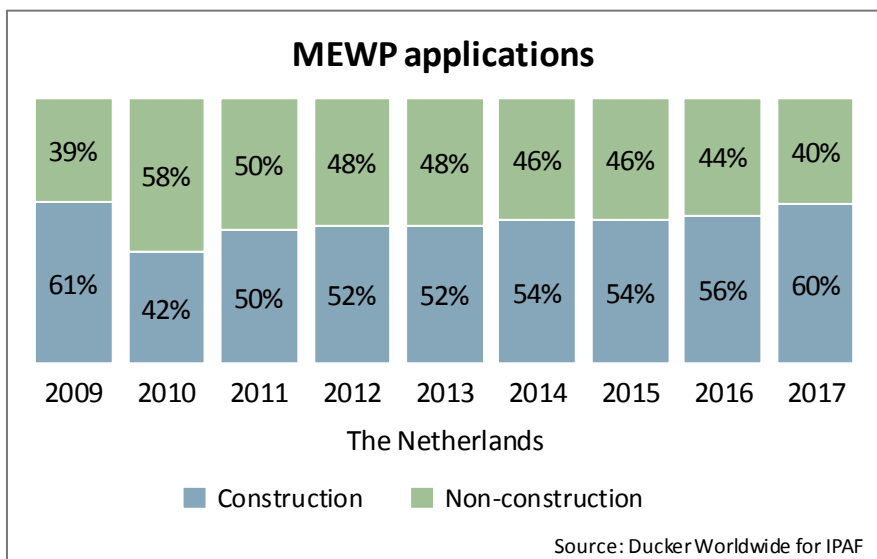
Average revenue per unit increased in 2017 for the second year in a row, driven by the overall MEWP rental market recovery in the Netherlands. This positive trend is expected to continue in 2018.

- With the overall positive market dynamic in the Netherlands, the progressive increase in rental rates and growth of utilisation rate, the average revenue per unit increased in 2017.
- As the market is expected to develop positively in the coming years, revenue per unit is expected to follow a similar trend.



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

Construction is gaining ground against non-construction use. Indeed, a strong growth in construction activity is being driven by several major projects in industrial or petrochemical sectors about to be launched.

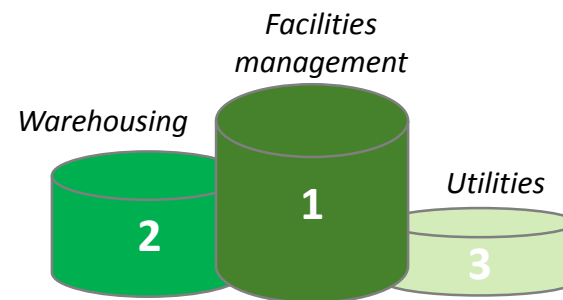


Share of rental revenues

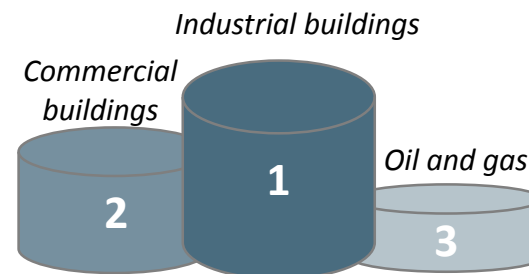
Non-construction includes industry, maintenance, cleaning, utilities, events.

Construction includes new build and renovation; including all types of buildings, also industrial.

## Main non-construction sub-sectors

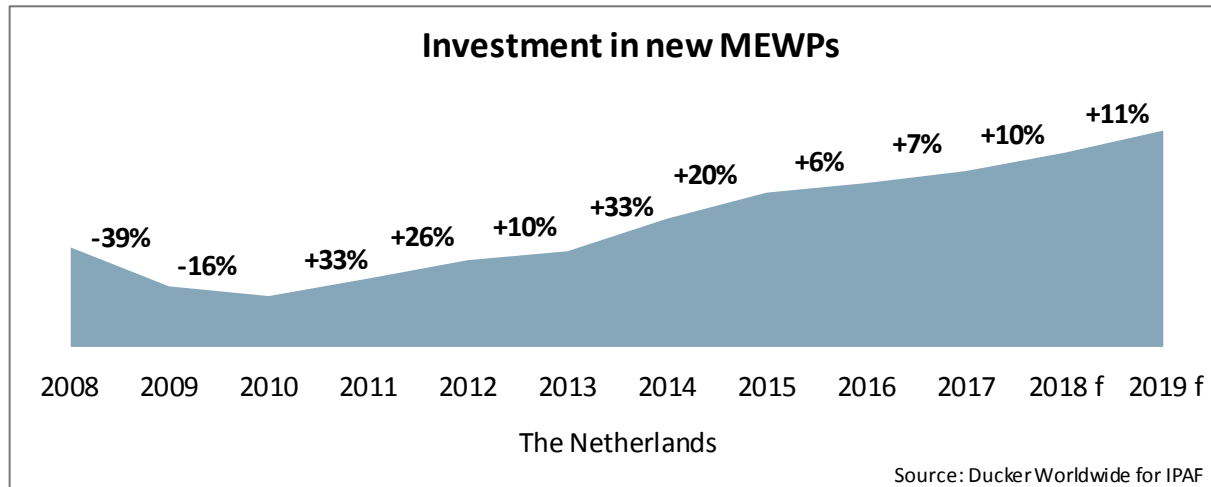


## Main construction sub-sectors



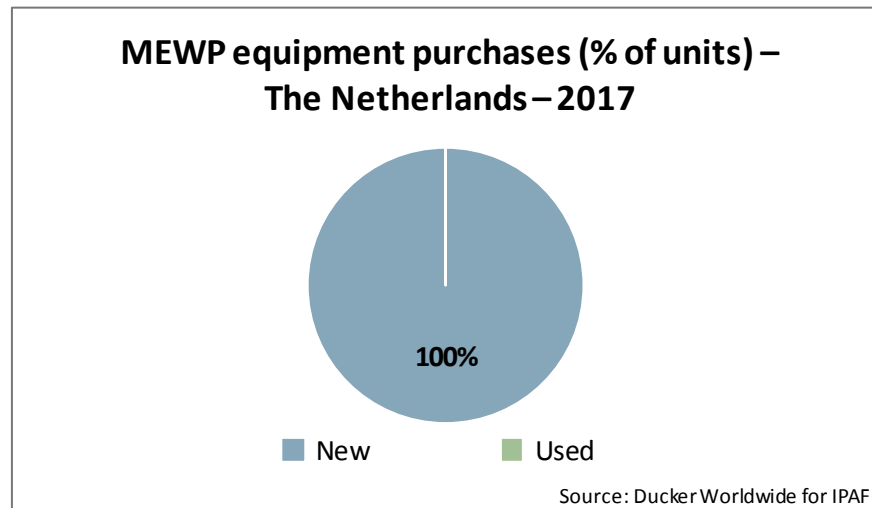
As Dutch rental companies develop their fleet and select more electric or hybrid equipment, the amount of investment in equipment purchases is increasing steadily.

- With the fleet expansion of 2017, investment was directed towards both fleet growth and renewal.
- Another element driving the increase in investment is the trend towards more electric equipment.



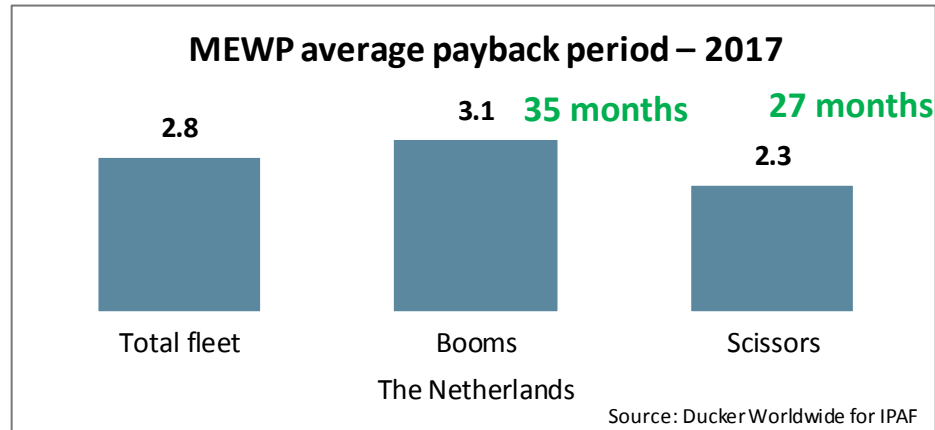
All equipment purchased by MEWP rental companies in the Netherlands tends to be new.

- Similar to the majority of European countries under study, rental companies chose to invest in new equipment only.



In 2017, payback period got shorter than in 2016. It is the shortest payback period across the ten European countries under study.

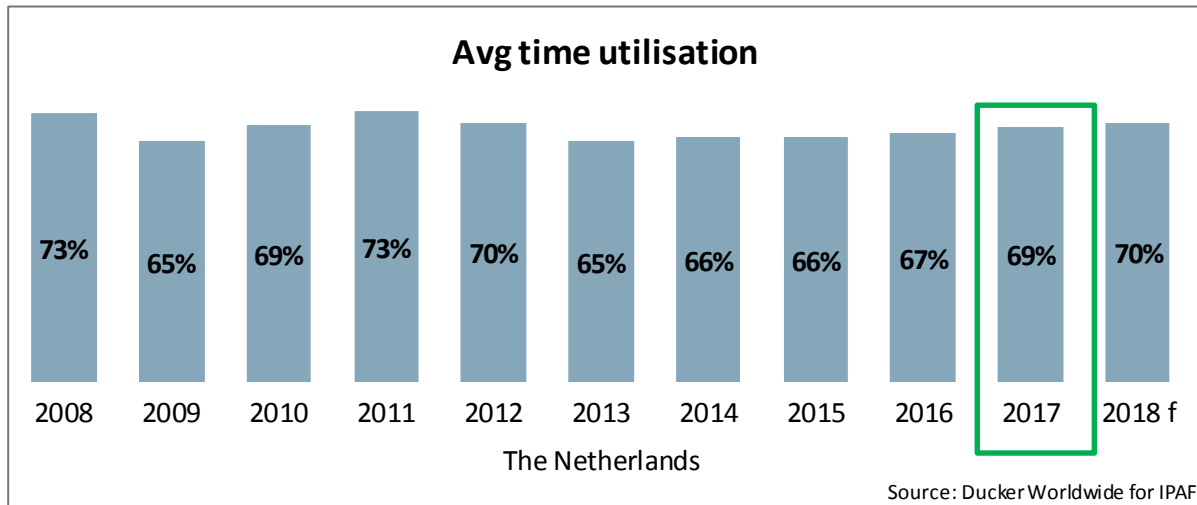
- Scissors being less expensive and with a higher utilisation rate, their payback period is shorter than booms.



**2.8 = 2 years and 8 months**

MEWP utilisation rate in the Netherlands is progressively increasing due to increased market demand. It reached 69% in 2017.

- Some rental companies with a higher utilisation level (>70%) consider that further increase is undesirable as it prevents them from ensuring good machinery maintenance.
- They intend to focus on fleet size development as they reach a high utilisation level.



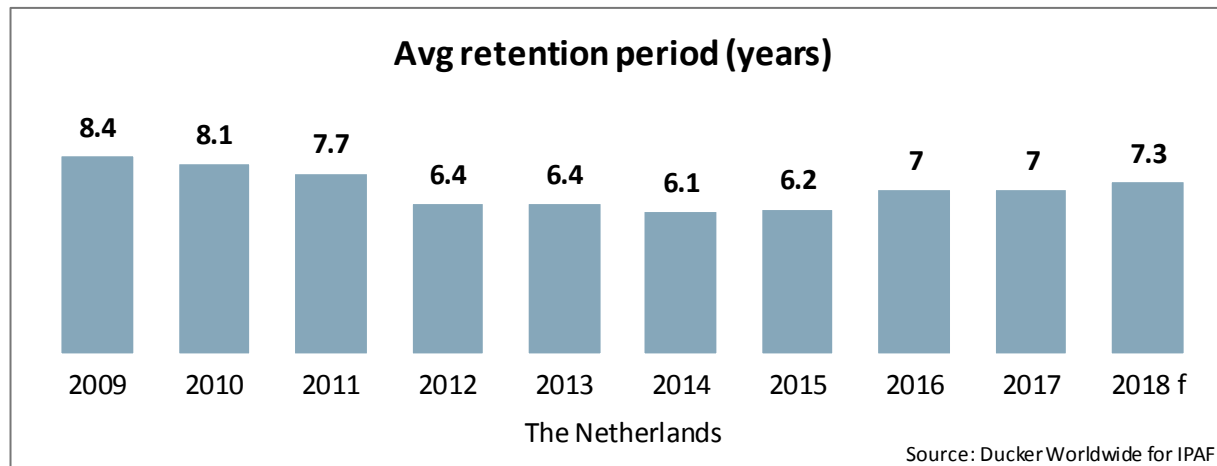
Scissors: 72%

Booms: 63%

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

As forecast in last year’s report, in 2017 the retention period remained at a similar level to 2016.

- The retention period depends mainly of the equipment usage: A machine used intensively will be removed from fleet earlier than another with a lower utilisation rate and no history of maintenance issues.



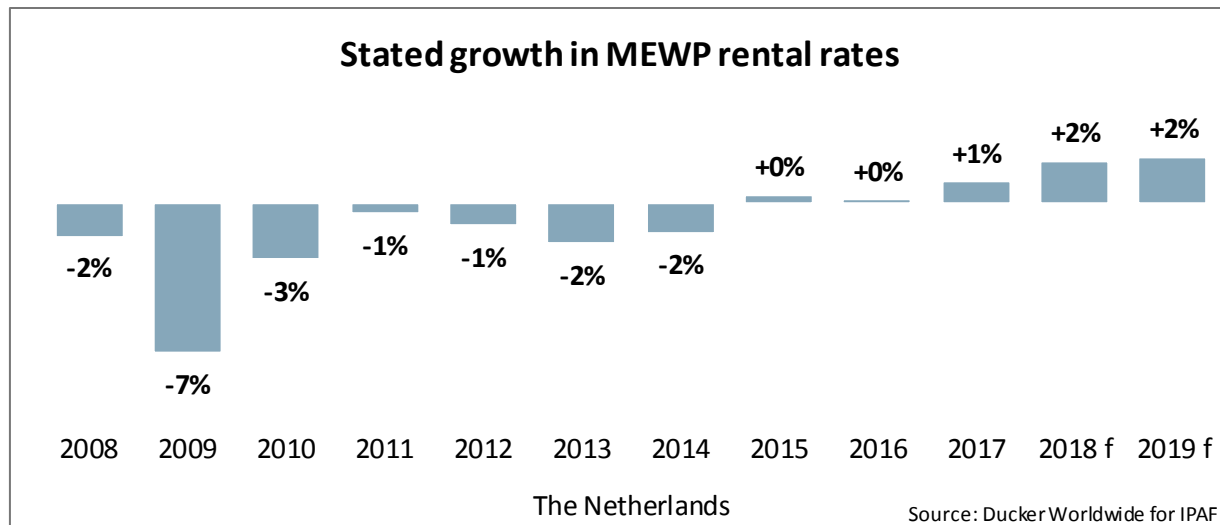
**7.0 = 7 years and 0 months**

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



In 2017, MEWP rental rates have started to increase again, after a long period of decrease, highlighting the overall market recovery.

- For the first time in nine years, rental companies were able to start increasing their rental rates again in 2017 in the Dutch market.
- Rental rates are forecast to continue rising in the next few years.



# A PERSPECTIVE FROM THE MANAGING EDITOR OF *INTERNATIONAL RENTAL NEWS*

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- The Netherlands has one of the fastest growing rental markets in Europe, according to the European Rental Association, with +5.0% growth in 2015 and 2016 followed by increases of closer to 4.0% for 2017 and 2018 (forecast).
- Of course, it is relatively small rental market, valued at around €1 billion by the ERA, which compares to €7 billion for the UK and €4 billion for France. That, and the presence of other big players such as Loxam (which acquired Workx a few years ago) makes it a very competitive market. That makes it inevitable that its largest players, such as Boels, Riwal and Collé Rental & Sales, will look outside the country for major expansion.
- For Boels that has means acquisitions and organic growth in places like the UK and Italy, while Riwal continues with its policy of internationalisation: it may have locations in 13 countries, but it has machines sold or working in more than 65.
- Even if opportunities for growth inside the Netherlands seem limited, that has not stopped Boels from expanding, often through acquisitions in particular niches, such as the power and temperature control rental business Abird at the end of 2017, and power, light and construction equipment specialist Delta Rent in April 2018, just as this report was being finalised.

- Companies in the Netherlands are also innovating on products. Riwal has made well publicised forays into electric booms, modifying several JLG models, but it is not the only one doing so. Early this year Collé Rental started to offer an electric version of Manitou's 280TJ boom, and 28 metre working height model developed with Netherlands-based Smart Platform Solution (SPS).
- That same drive towards electrification or hybridisation of machines is evident in another Netherlands access specialist, Hoogwerkt, which is promoting a low-cost, zero emissions business model based on all-electric models.
- It has several battery-powered Hinowa 'Spider' models and Niftylift booms, but made the headlines recently by placing an order for 420 of JCB's new lithium ion battery powered scissor lifts. The company is also promoting a 'low cost' model, with customers picking up machines themselves and able to pay by the hour.
- That kind of online model is likely to be seen much more in the future, and is just one of the digital challenges being faced by traditional rental companies, and not just in the Netherlands.

# APPENDIX

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## IPAF Powered Access Rental Market Report 2018 – THE NETHERLANDS

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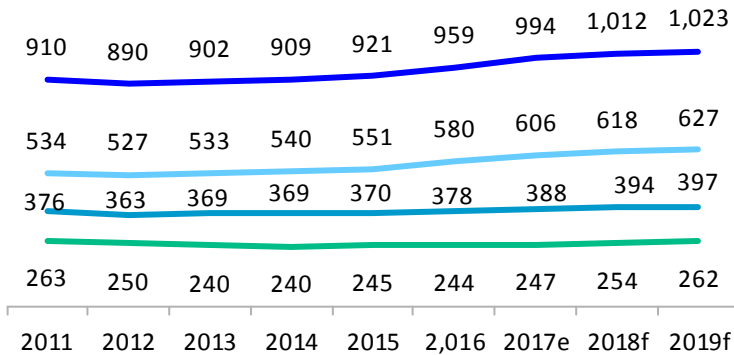
The positive trend is continuing in the Netherlands: Both construction and GDP per capita indicators are expected to grow steadily over the next few years.

Compound Annual Growth Rate (CAGR) 17-19 = 1.46%

Compound Annual Growth Rate (CAGR) 17-19 = 3.75%

Compound Annual Growth Rate (CAGR) 17-19 = 1.49%

Europe – Construction data

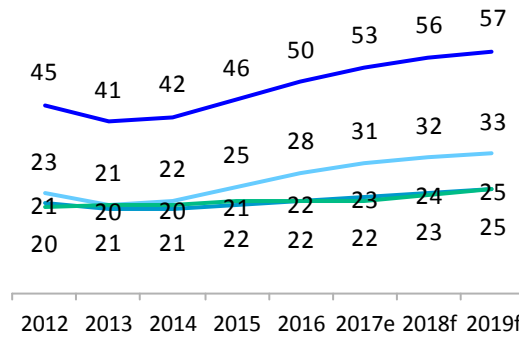


Source: Ducker Worldwide for IPAF

Construction put in place in billion Euros based on Euroconstruct 2017.

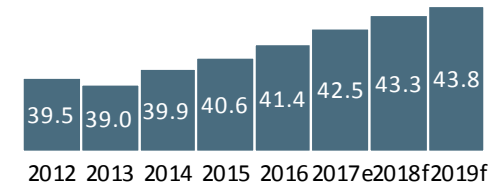
- Residential construction
- Non-residential construction
- Total construction
- Civil engineering

The Netherlands



Source: Ducker Worldwide for IPAF

The Netherlands



THE NETHERLANDS GDP per Capita in thousand euros – estimates based on Euroconstruct 2017.

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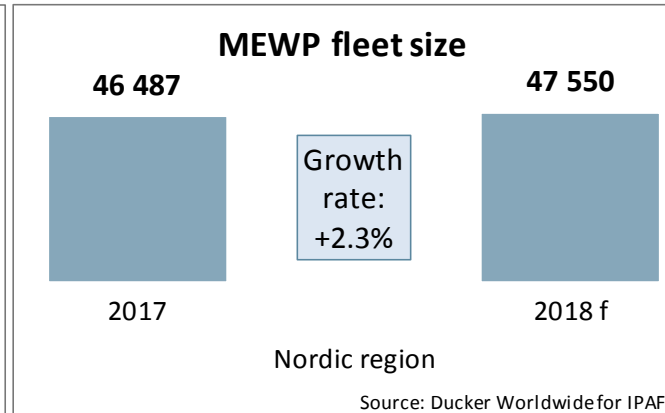
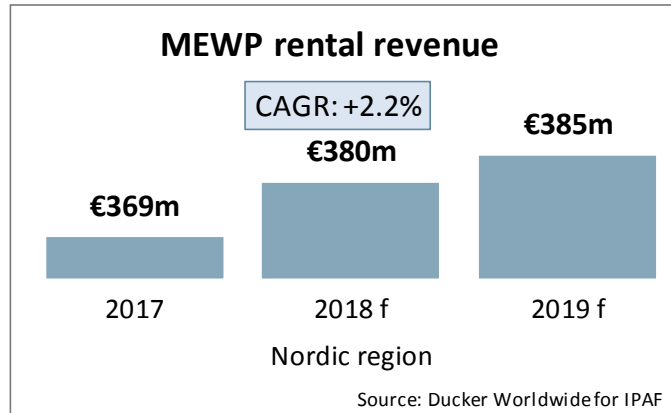
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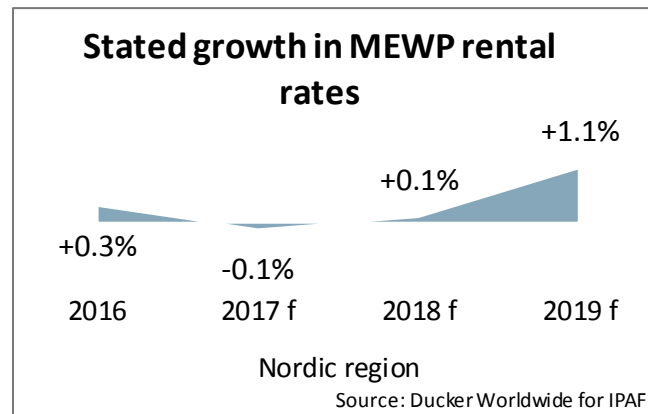
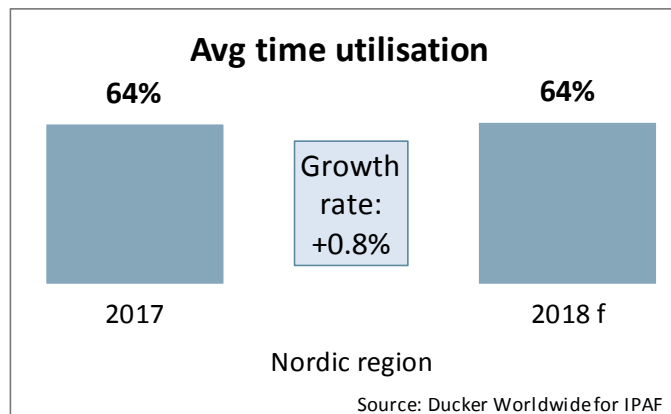
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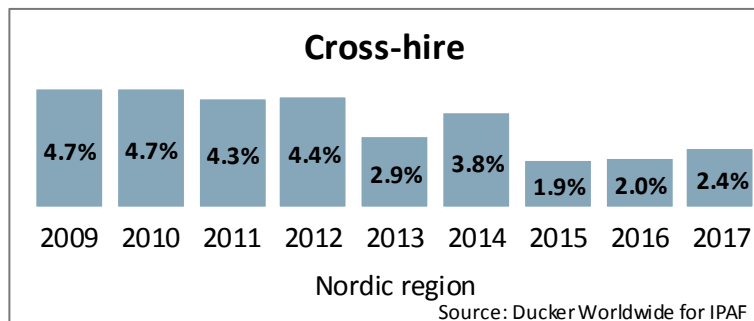
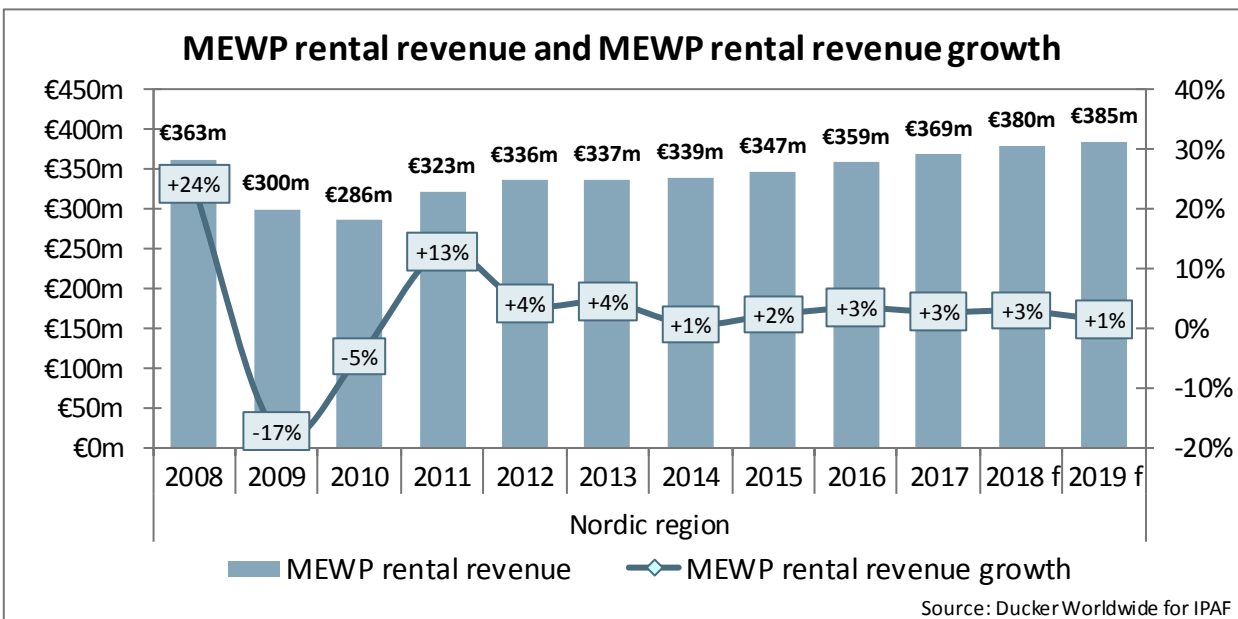
The overall market situation is evolving positively in the Nordic countries. Nevertheless, while some countries experienced significant growth (Finland), markets remained more stable in others (Norway).



- Revenue grew the most in Finland, while it remained stable in Norway. It experienced a rather moderate growth in Sweden and in Denmark, with an average growth rate ranging between 2% and 3%.
- Fleet was one of the main growth drivers in 2017 in all countries, except in Norway, where fleet size remained stable.
- While the utilisation rate increased rather similarly across Nordic countries, the evolution of rental rates differed.



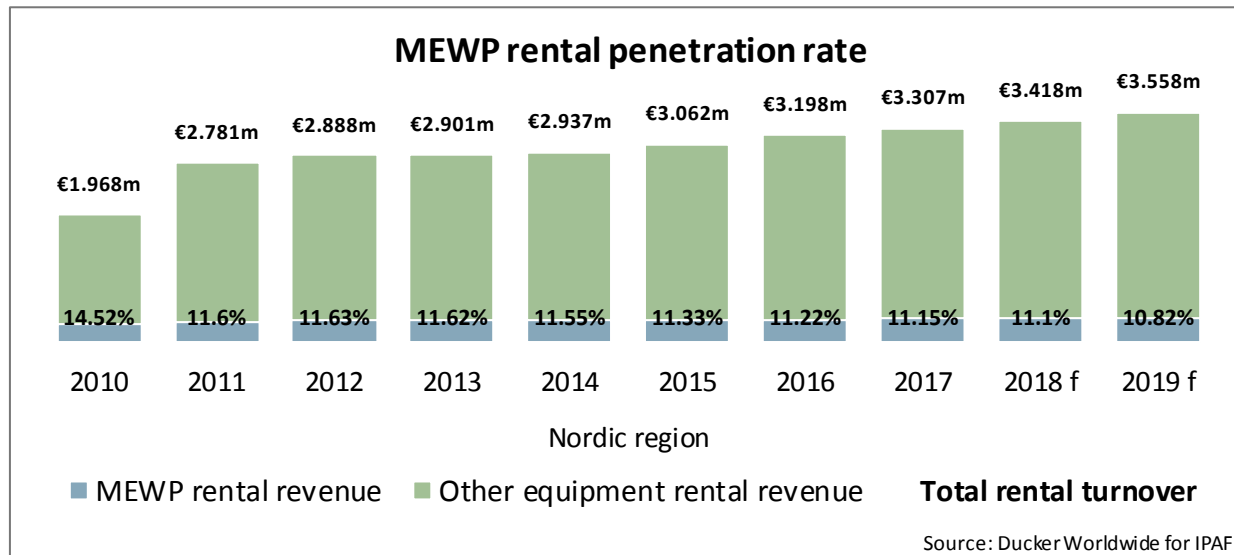
Although the overall MEWP rental revenue is growing in the Nordic countries, a variety of situations are encountered on each of the four markets under study, with revenue growth rates ranging between 0% (Norway) and 6% (Finland).



- Growth was sustained in Finland with a 6% MEWP rental revenue increase in 2017. Outlooks for the market are positive as the market has not reached maturity yet.
- The growth of Swedish market is constant over the years (3% MEWP rental revenue growth in 2017): Short term demands drove machine shortage, translating thus into a higher cross hire level (approximately 5%).
- Despite intense competition on the Danish market, the construction sector is booming and driving favorable conditions for an overall market growth (2% rental revenue in 2017).
- 2017 was a relatively stable year in Norway with limited revenue evolution.

As forecast in last year’s report edition, the MEWP rental penetration rate tends to remain stable over the years in the Nordic countries (source ERA).

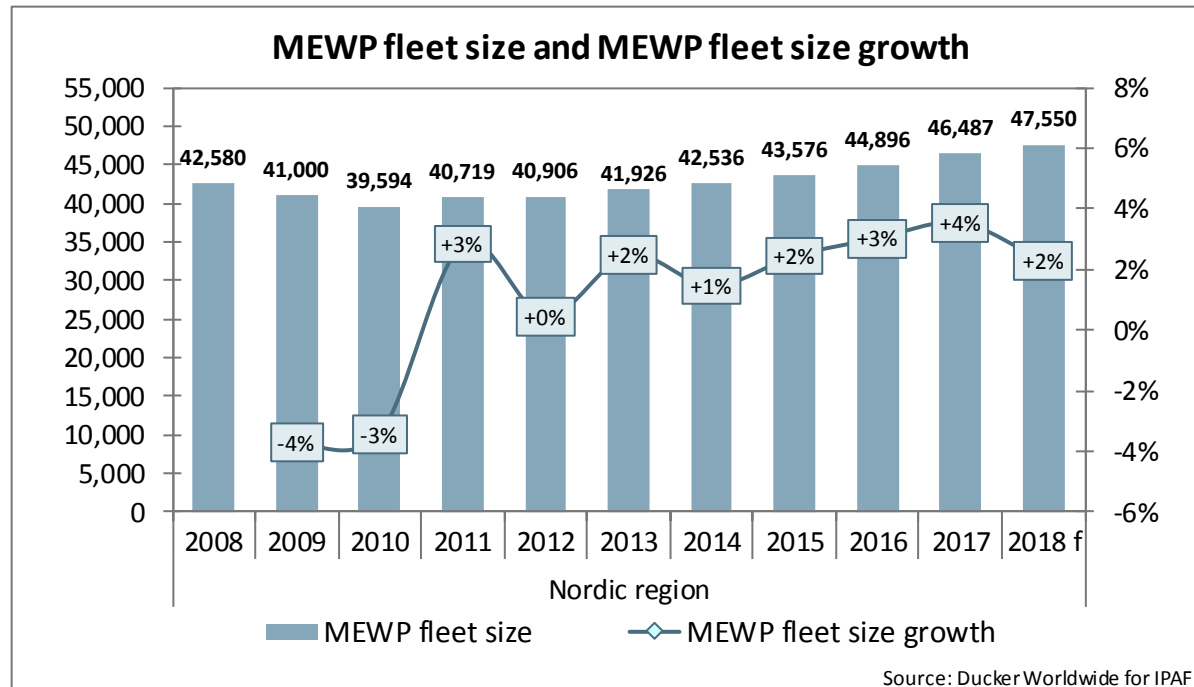
- Both MEWP rental market and the overall rental market are increasing at a rather similar pace, driving thus a stable level of MEWP rental penetration.
- Penetration level remains the highest in Finland and in Denmark.



*Source for Total Rental Turnover: ERA 2017 Report.*

Fleet size grew at a stronger pace in 2017 than in 2016 in the Nordic countries. Total fleet size for this region exceeded 45,000 units and is expected to continue to grow in the coming years.

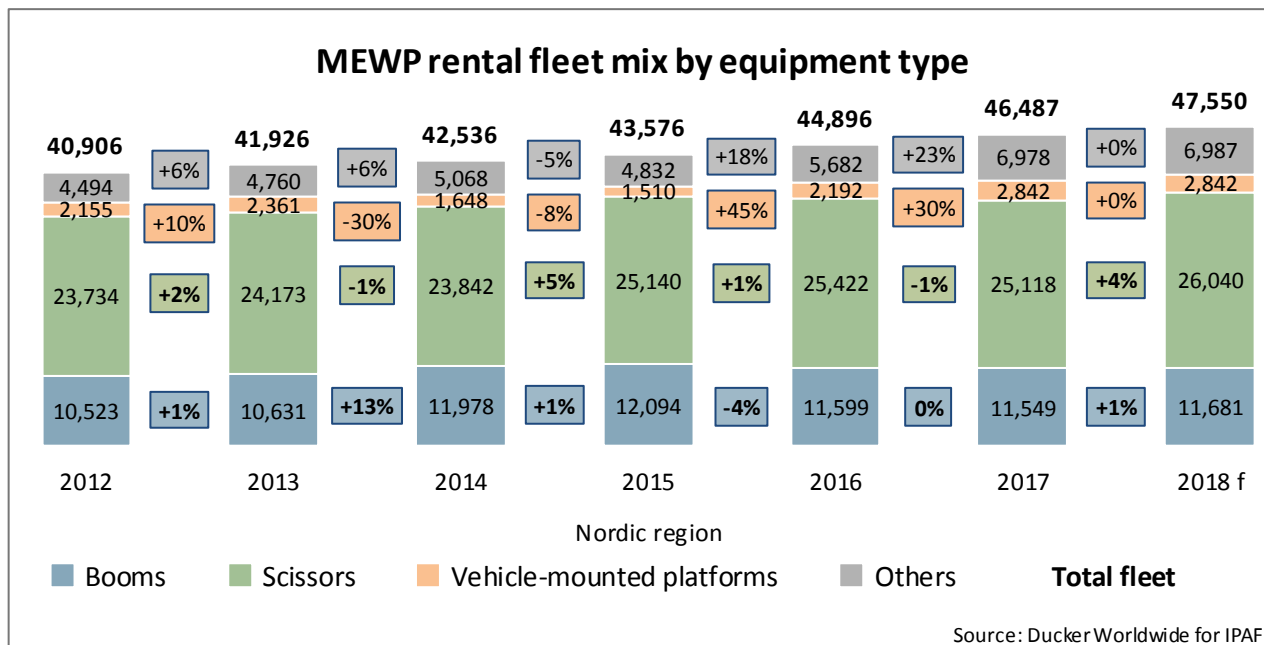
- Fleet growth is rather significant in three Nordics countries (Finland, Denmark and Sweden): it increased by 4 or 5% in each of these countries in 2017.
- With the limited market development, fleet size remained stable in Norway. Although some construction projects lead to rather positive outlooks in 2019, companies remain cautious and limit investments in fleet expansion at the moment.



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

All equipment categories are concerned with the increase in fleet size growth, whether it happens in 2017 or in 2018. The fleet mix is expected to remain rather stable, with a majority of scissors.

- The overall fleet mix remained rather stable in the Nordic countries in 2017.
- Scissors account for the largest share of equipment, with almost 55% of the MEWP rental fleet.



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

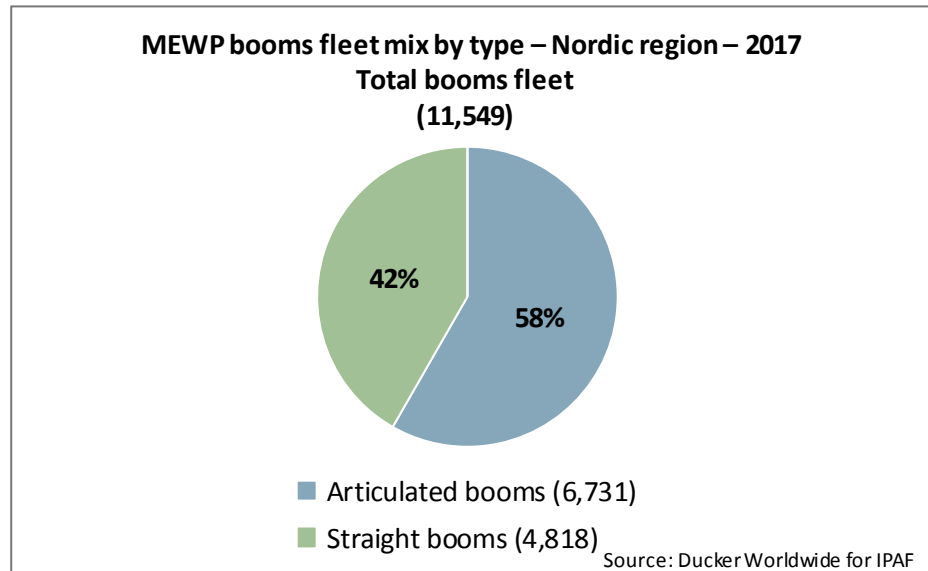
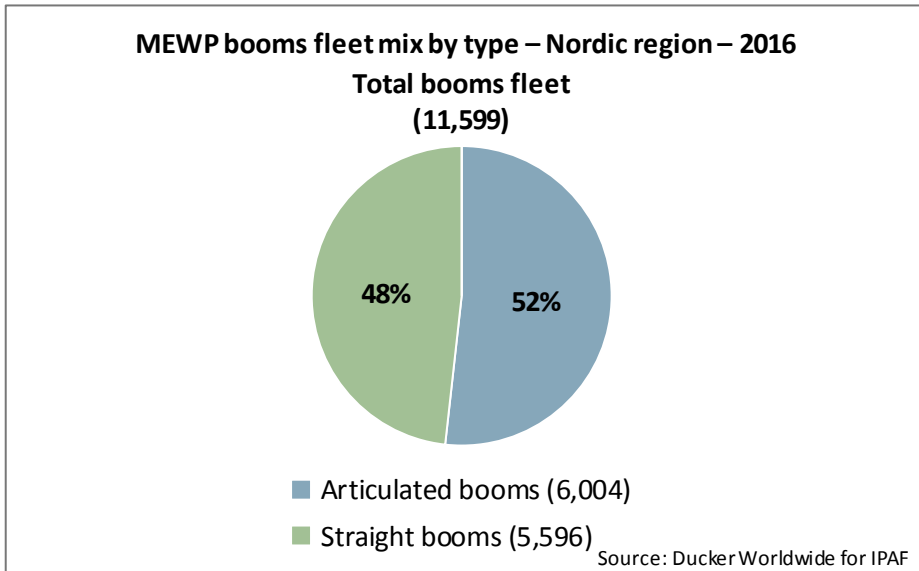
+X%

% unit growth, eg booms fleet decreased by 1% from 2016 to 2017.

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

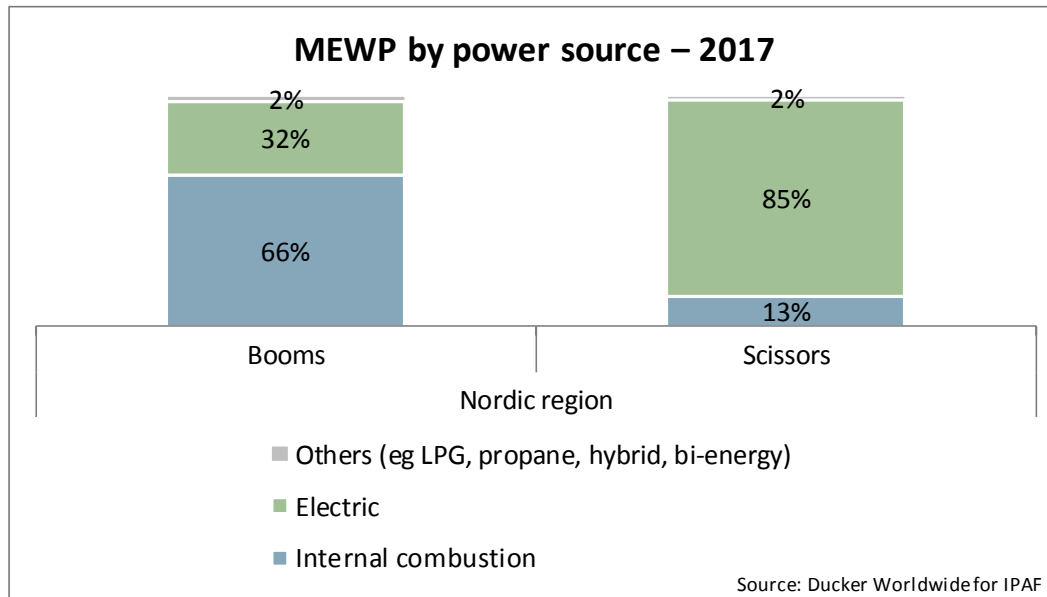
Articulated booms now dominate the booms market in the MEWP rental sector in the Nordic countries. Articulated booms’ versatility is driving the increase usage of this equipment category.

- Similarly to the 2016, articulated booms continued to gain ground against straight ones.
- Nevertheless, the share of straight booms remains higher than the European average (28%). In countries like Norway the constraints of limited working space, which typically drives higher articulated booms usage, are less important.



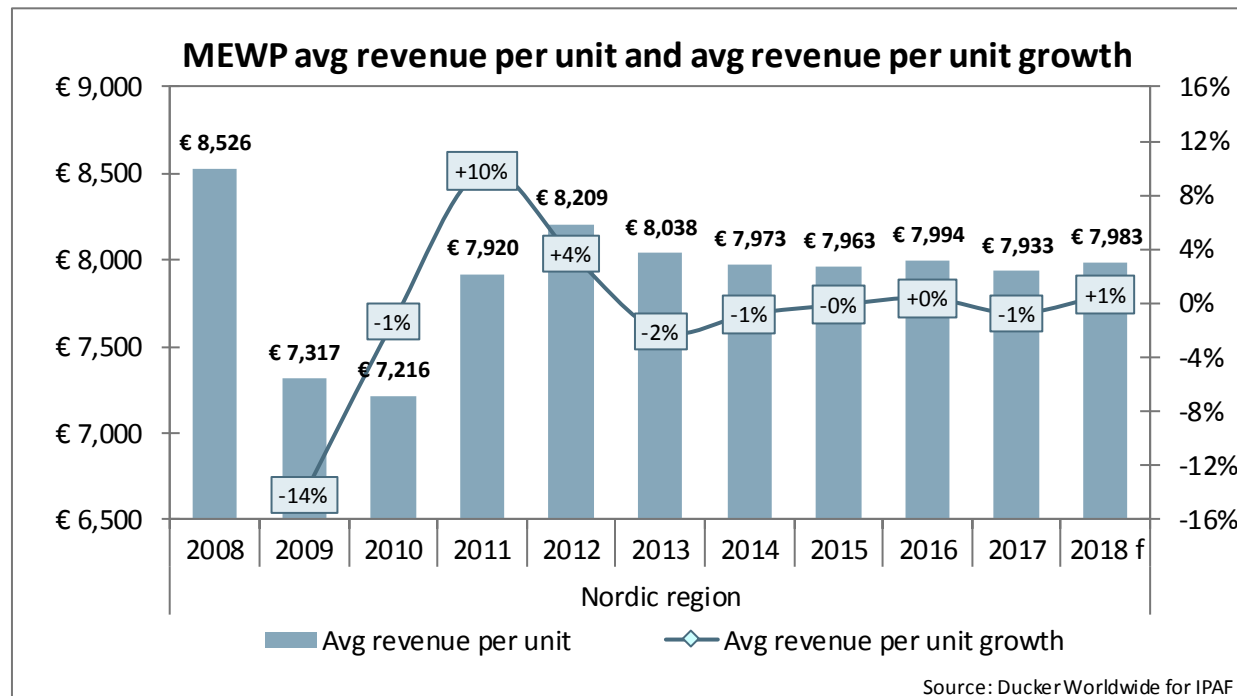
The scissors category is dominated by electric equipment, similarly to most of the European countries under study. Booms remain predominantly diesel equipment due to their main outdoor usage.

- In Nordic countries, a strong emphasis is put on “green” machines. Electric and hybrid equipment accounts for a large share of total MEWP rental fleet.
- Some local regulations regarding the authorized level of CO<sub>2</sub> are said to be very stringent and drive the usage of greener machines.



Average revenue per unit in the Nordic countries has experienced limited variations over the past few years. In addition, it is expected to remain at a stable level in 2018.

- As forecast in last year’s report edition, the average revenue per unit tended to remain stable to slightly decreasing in 2017 in the Nordic countries.
- With the moderate to strong growth forecasts expected in the next few years, revenue per unit is expected to start increasing again from 2018 onwards.

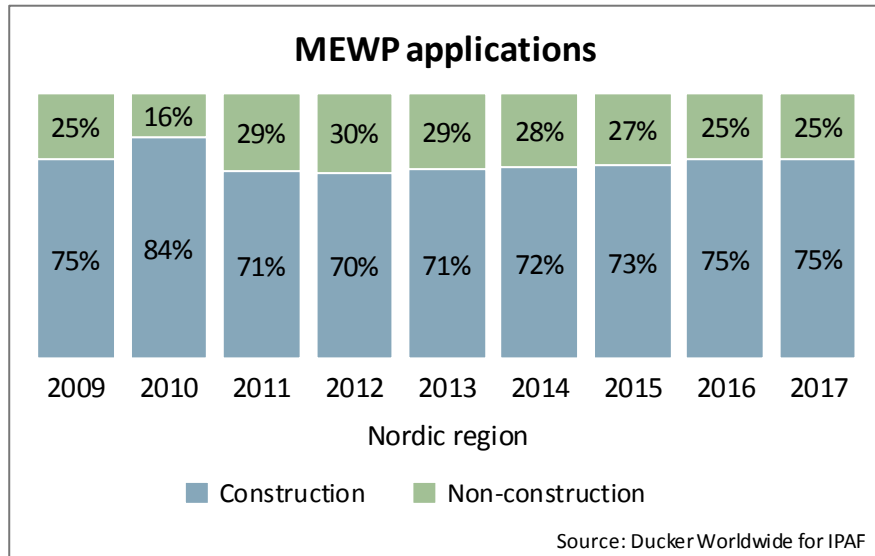


*Note: Included are powered access lifts: all booms, scissor lifts and vertical masts  
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers*



The Nordic countries are the European region under study where the share of construction end-sector is the highest, highlighting the strong dependency of MEWP rental markets to construction activity's dynamism.

- The share of construction and non-construction end-sectors remained stable in 2017, with construction reaching its highest level over the last eight years.

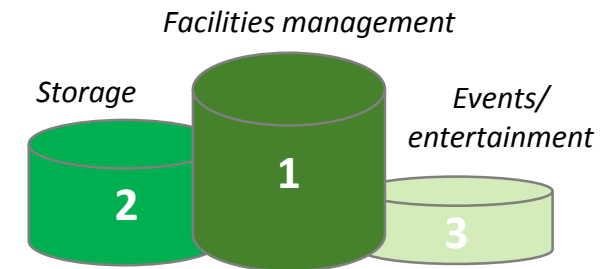


Share of rental revenues

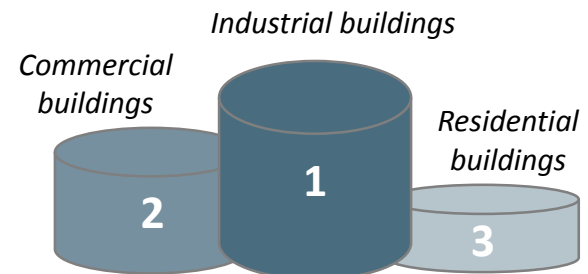
Non-construction includes industry, maintenance, cleaning, utilities, events.

Construction includes new build and renovation; including all types of buildings, also industrial.

### Main non-construction sub-sectors



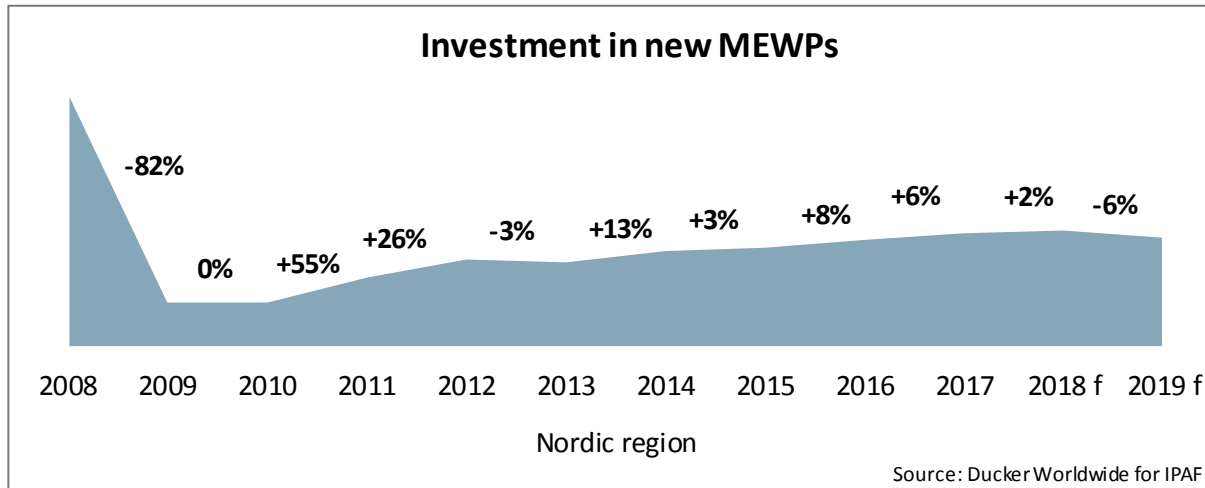
### Main construction sub-sectors



Please note that more country details are available in the Global Report

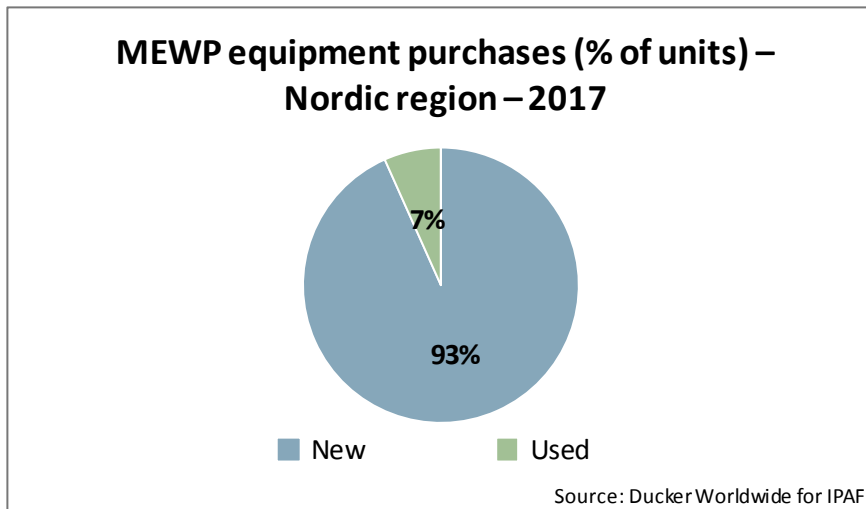
As forecast in last year’s report edition, the investment level is evolving at a moderate pace, and expected to reach a plateau in 2018.

- Although the level of investments continued to increase in 2017, for the seventh year in a row, it is expected to progressively stabilise or decrease slightly over the coming years.
- Fleets have been renewed recently and next investments are expected to focus on fleet expansion mainly in Sweden, Finland, Denmark.



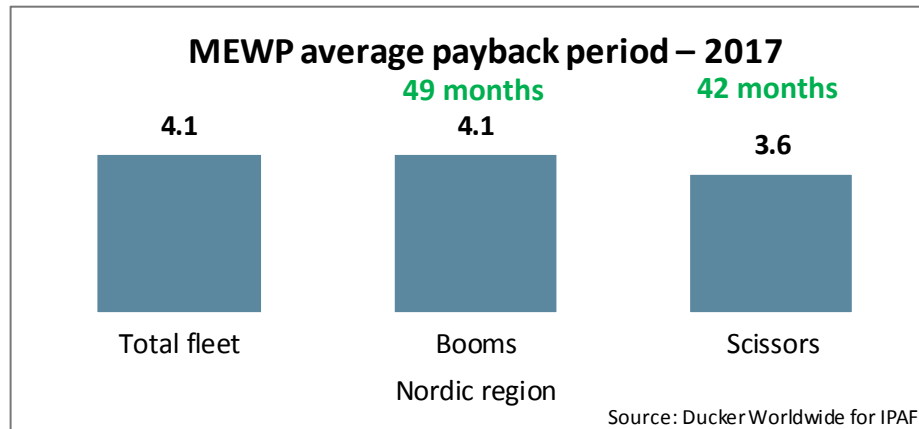
In the Nordic countries, equipment is predominantly purchased new.

- A large majority of rental companies focus on purchasing new equipment only.



Similar to last year’s average, the average payback period for MEWPs in the Nordic countries is close to four years.

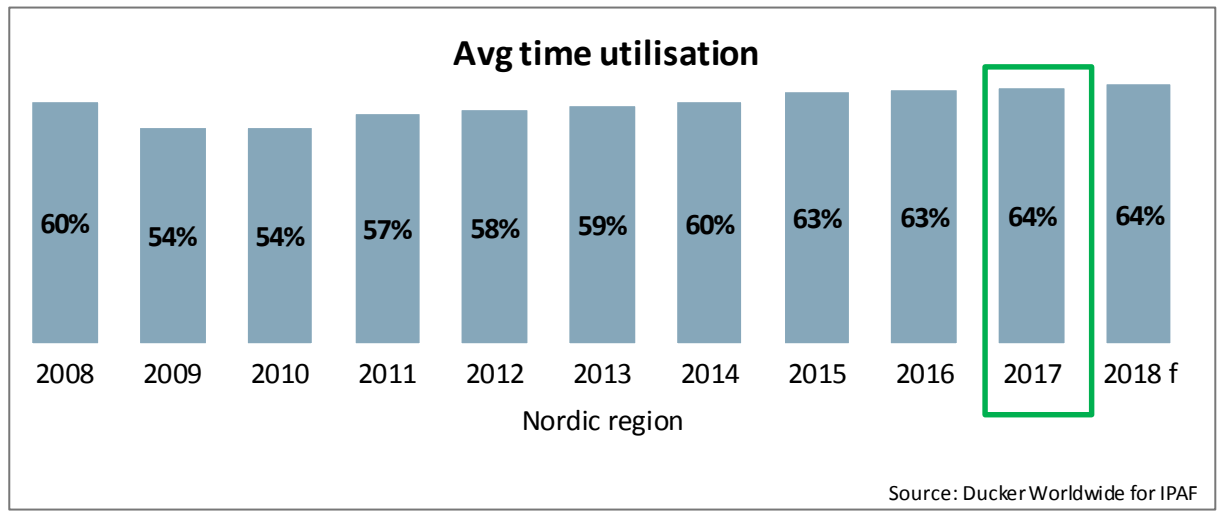
- In all Nordic countries, the payback period is typically shorter for scissors, which benefit from a better utilisation rate than booms.
- The average payback period is the longest in Norway (four and a half years in average) and the shortest in Finland (almost three years).



**4.1 = 4 years and 1 month**

As forecast in last year’s report, utilisation rates in Nordic countries increased slightly in 2017. It is now expected to remain at a stable level in 2018.

- Utilisation rate in the Nordic countries depends heavily on several aspects such as weather conditions and large distances in countries such as Sweden and Norway.
- As a result, although aligned with the European average, an average utilisation rate of 64% in the Nordic countries is a good indicator of a strong activity in this region.

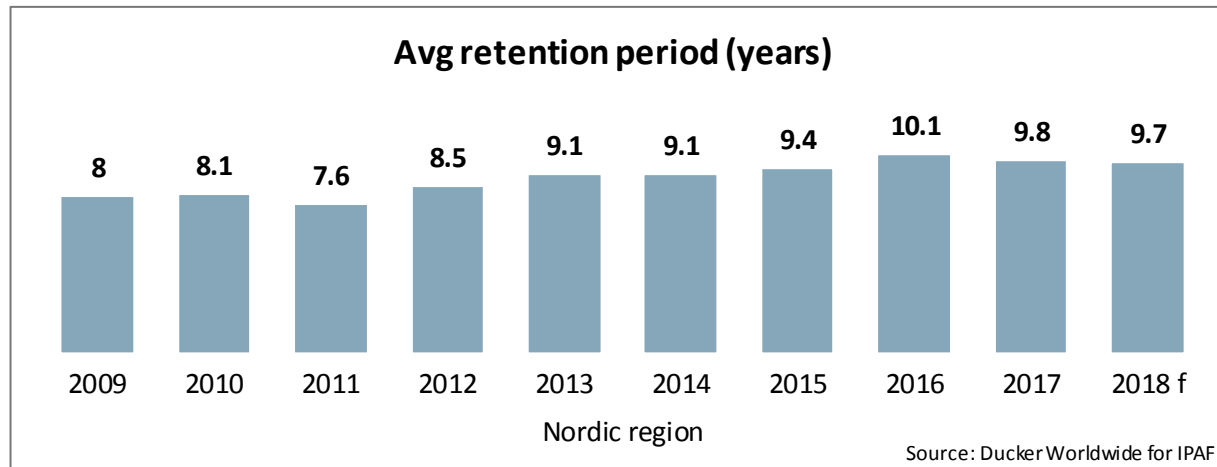


Scissors: 67%  
Booms: 62%

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

The retention period varies from one Nordic country to another. On average, it is close to ten years and the European average.

- Very limited change is expected regarding the retention period in the next few years, and rental companies expect to maintain a stable level.
- The retention period is the shortest in Denmark (slightly less than 8 years) and the longest in Norway (close to eleven years): due to the relative market stagnation, rental companies limit their investments in fleet expansion and renewal and tend to keep their equipment longer.

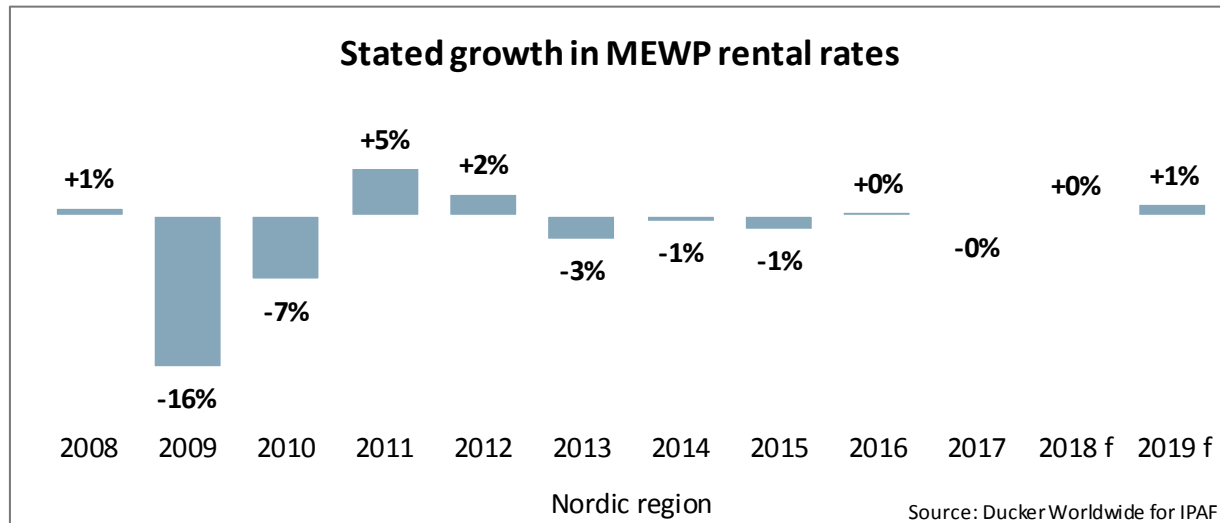


**9.8 = 9 years and 8 months**

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

The relative stagnation of the average rental rates in the Nordic countries hide a variety of situations depending on the market under study. Competition is intense and limited growth is expected in the next few years.

- The relative stabilisation of rental rates in the Nordic countries highlights the strong competitive pressure.
- Rates have actually gone down in 2017 both in Denmark and Norway. On the contrary, MEWP rental companies managed to increase them slightly (+1%) in Sweden and in Finland.



# A PERSPECTIVE FROM THE MANAGING EDITOR OF *INTERNATIONAL RENTAL NEWS* IPAF Powered Access Rental Market Report 2018 – NORDICS

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- Perhaps too many in the rental industry view the Nordic region simply through the prism of Cramo and Ramirent, the region's two biggest rental companies. What these two get up to is of course important and symptomatic of wider industry trends, but focus entirely on them and you miss another picture. That picture would include the hundreds of other vibrant rental companies operating in the region, some of which are seriously ambitious.
- In Norway, for example, family-owned Naboen continues to expand at a remarkable rate, with revenues of less than €5 million five years ago and now exceeding €30 million. The business is strong in southern Norway but is now embarking on a move to the north. Nina Aasland, the company's CEO, says that longer term it will look towards neighbouring Sweden for further expansion.
- Likewise in Finland there is a young business aiming to give Ramirent and Cramo a run for their money. That company is Renta, led by former Ramirent boss Erkki Norvio and CEO Kari Aulasmaa. It has grown through acquisitions to become a €45 million-revenue business in little over two years.
- The owners aim to start internationalisation of the business this year, with Sweden an eventual target, and an ambition to be a €200 million scale operation by 2020. A lot of that will no doubt come through acquisitions, but you can bet that they will be targeting Cramo and Ramirent business as well.
- The big two are meanwhile going through their own strategic journeys. Cramo took the decision to divest its Danish business (sold to Cramo) and is also considering now whether to demerge its sizeable temporary accommodation concern, Cramo Adapteo. Similarly, Ramirent announced in late November that it may also sell its temporary space businesses in Sweden, Norway, Finland and Denmark. In both cases this will mean more management focus on their core businesses, including aeriels.

- Ramirent's financials – its revenue growth in 2017 was its highest since 2012 – reflected the overall positive picture for the region's economies and construction sectors. The European Rental Association paints a pretty rosy picture for all four countries, with rental market growth last year of between 2.8% and 3.8%, similar levels this year and even stronger growth in 2019. Denmark is on a slowly upward trajectory, likewise Norway, while Sweden and Finland are forecast to see growth in the 3.0-4.0% range this year and next.
- Nowhere in Europe is the push towards sustainability in business and environmental concerns given as much weight as it is in the Nordic region. Ramirent has been exploiting rental's role in the sharing economy by managing to get €50 million in investment funding from the European Investment Bank (EIB) to help it accelerate the move from buying to renting; while another example is Naboen's investment in electrified JLG booms from Riwal.
- Anybody concerned with rental and sustainability would do well to look up the sustainability publications issued by Cramo and Ramirent. For example Ramirent has embarked on a refurbishment programme for a number of its produce ranges, including aerial platforms, which will see working lives extended by five years on selected models.
- Of course, the strong construction markets in the Nordic region are not going unnoticed: Loxam's move into Denmark is one of the few moves into the region by the bigger players further west or south. Whether more will come, and in a meaningful way, will be interesting to watch.

# APPENDIX

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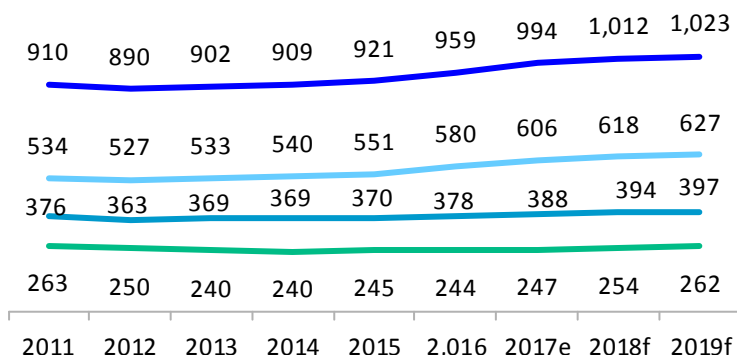
- Exchange rate:
  - The currency exchange rate used for the Nordic region is shown below. The same rate has been used throughout the time period (2017) in order to eliminate variation in growth rates due to exchange rate fluctuations rather than to the actual MEWP rental market.

	<b>Currency Unit</b>	<b>Converter to Euro</b>
Denmark	DKK	0.134
Norway	NOK	0.103
Sweden	SEK	0.101

Nordic countries will experience contrasted growth of the construction sector in the next few years. A limited growth is expected in Sweden and Norway.

**Compound Annual Growth Rate (CAGR) 17-19 = 1.46%**

### Europe – Construction data



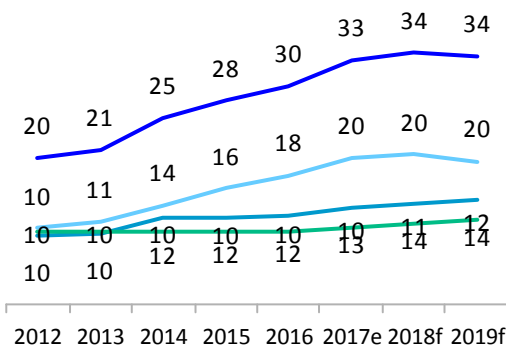
Source: Ducker Worldwide for IPAF

Construction put in place in billion Euros based on Euroconstruct 2017.

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering

**Compound Annual Growth Rate (CAGR) 17-19 = 0.84%**

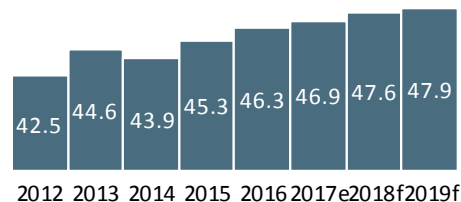
### Sweden



Source: Ducker Worldwide for IPAF

**Compound Annual Growth Rate (CAGR) 17-19 = 1.08%**

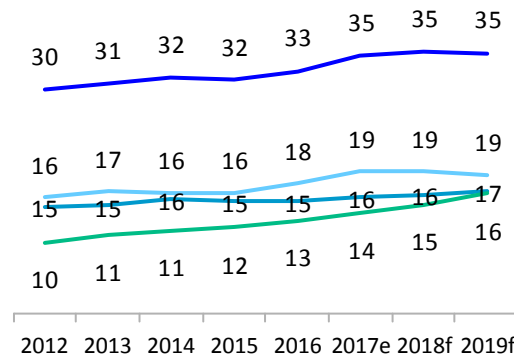
### Sweden



NORDIC REGION GDP per Capita in thousand euros – estimates based on Euroconstruct 2017.

**Compound Annual Growth Rate (CAGR) 17-19 = 0.47%**

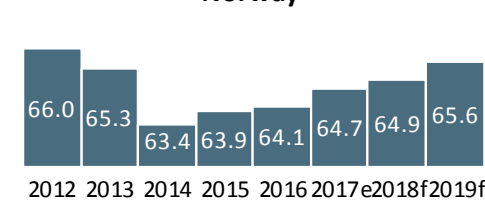
### Norway



Source: Ducker Worldwide for IPAF

**Compound Annual Growth Rate (CAGR) 17-19 = 0.69%**

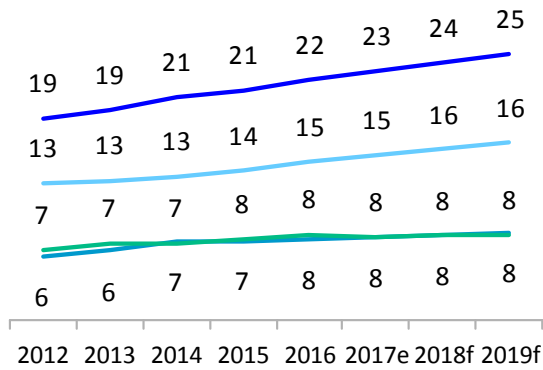
### Norway



Denmark is the Nordic country with the strongest expected construction growth, while Finland will experience a new construction decrease in 2019 after two years of recovery.

**Compound Annual Growth Rate (CAGR) 17-19 = 3.41%**

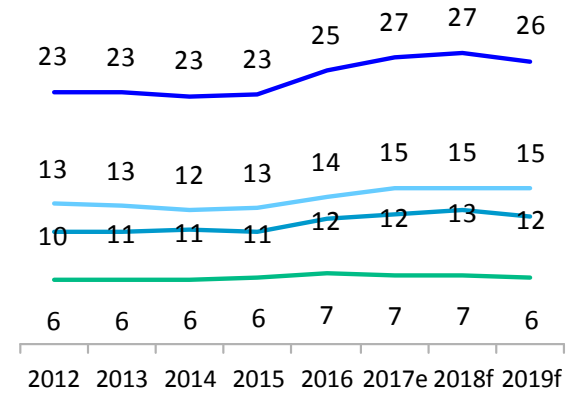
**Denmark**



Source: Ducker Worldwide for IPAF

**Compound Annual Growth Rate (CAGR) 17-19 = -0.57%**

**Finland**

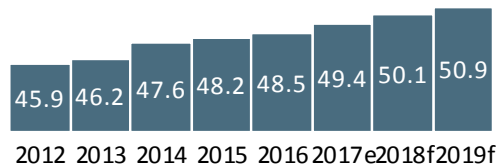


Source: Ducker Worldwide for IPAF

**Compound Annual Growth Rate (CAGR) 17-19 = 1.50%**

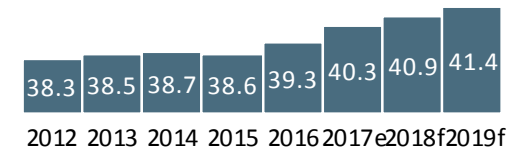
**Denmark**

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering



**Compound Annual Growth Rate (CAGR) 17-19 = 1.46%**

**Finland**



NORDIC REGION GDP per Capita in thousand euros  
 – estimates based on Euroconstruct 2017.

# THANK YOU.

The International Powered Access Federation (IPAF) is a not for profit members organisation that promotes the safe and effective use of powered access equipment worldwide. Members include manufacturers, rental companies, contractors and users.

Offices in: UK, Brazil, China, Finland, France, Germany, Italy, the Netherlands, Singapore, Spain, Switzerland, UAE, USA.

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# IPAF POWERED ACCESS RENTAL MARKET REPORT 2018 – NORTH AMERICA

*April 2018*

*(USA & CANADA)*

*European Association Award-winner for Best Provision of  
Business Information and Intelligence 2018*



**THE EUROPEAN  
ASSOCIATION  
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This Report Has Been Prepared Solely For :

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## CONTENTS – IPAF POWERED ACCESS RENTAL MARKET REPORT 2018 – NORTH AMERICA

Foreword	3
Executive Summary	13
Market Size & Dynamics 2008 – 2017	16
Investment 2008 – 2017	24
Operational Aspects 2008 -2017	27
A Perspective from the Managing Editor of <i>International Rental News</i>	32
Market Trends & Drivers	35
Canadian MEWP Market	40

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# FOREWORD

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## IPAF Powered Access Rental Market Report 2018 – North America (USA + Canada)

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## IPAF

- The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide. IPAF is a non-profit member organisation that represents the interests of rental companies, manufacturers, distributors, users and training companies. It was set up in 1983 and celebrated its 30th anniversary in 2013.
- The IPAF training programme for platform operators is certified by TÜV as conforming to ISO 18878. More than 150,000 people are trained each year through a worldwide network of over 600 IPAF-approved training centres. Successful trainees are awarded the PAL Card (Powered Access Licence), the most widely held and recognised proof of training for platform operators.
- Membership of IPAF is open to users of platforms, manufacturers, distributors, rental and training companies. Members enjoy access to practical information and a growing portfolio of member services. They also have the chance to influence the legislation and regulations that govern platform use. More information can be found at [www.ipaf.org](http://www.ipaf.org).
- IPAF has more than 1200 members.



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- Ducker Worldwide, a premier consulting and research firm, is driven to help its clients achieve their most ambitious growth goals. Custom market intelligence, strategic consulting and transaction advisory services are delivered by fully-engaged Ducker Principals and a diverse team of global talent.
- 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 and by Ducker's internal multi-lingual call-centers.
  - Methodological expertise: on-going involvement in strategic consulting within areas such as market sizing and segmentation, distribution structure, competitive positioning, customer satisfaction 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 Worldwide works to the guidelines of the ESOMAR ethics standards.
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This report was produced by the European headquarters of Ducker Worldwide in cooperation with its US headquarters.

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This study assesses the MEWP (Mobile Elevating Work Platform) rental market value for the US over a eleven-year period. A separate report is available covering the European market.

- The study covers the time period 2008-2019, with particular focus on 2017.
- Main objectives:
  - 2017 MEWP rental market value and fleet size.
  - Trends and dynamics (2008–2019).
  - 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 available than rental revenue. This has allowed for cross-checks, revenue-per-unit ratios and the optimization of secondary sources.
  - Estimated size of the 2017 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.
  - Utilization rates by equipment type (booms vs. scissors).
- The current study does not examine rental company profitability.
- All interviews were conducted in the first three months of 2018 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.





### Products and Countries

- The current study focuses on powered access equipment owned by rental fleets, i.e. aerial work platforms (AWPs), also called mobile elevating work platforms (MEWPs). 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 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, mast climbers and equipment owned by non-rental companies.
- This report focuses on the US domestic market.
  - No regional segmentation is included.



### Target Companies and Respondents

- The main source of information for this study is primary research through telephone interviews. Organizations 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.



### Definitions

- **MEWP rental revenue:**
  - Includes for example: machine rental rates, machine repair, support (e.g. fuel services), transportation/delivery, training, damage waiver, operator charges.
  - Used equipment sales are excluded from the MEWP rental revenues reported.
- **Re-rental:**
  - Rental by one rental company from another rental company.
- **Utilization rate:**
  - Physical number of machines out on rent as a percentage of the total number in fleet at any given time.
- **Average age of fleet:**
  - Overall average age of the fleet in December 2017, 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.

# EXECUTIVE SUMMARY

## IPAF Powered Access Rental Market Report 2018 – USA

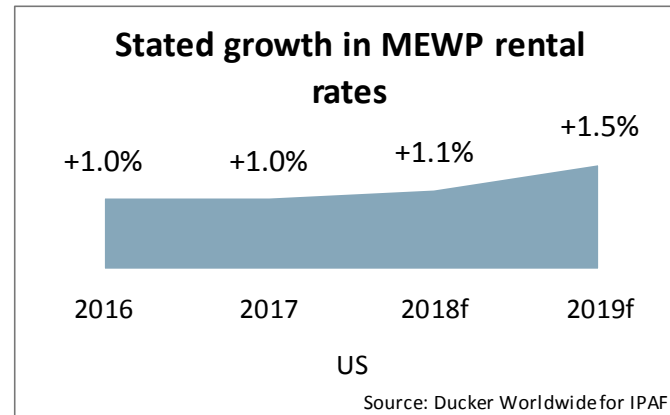
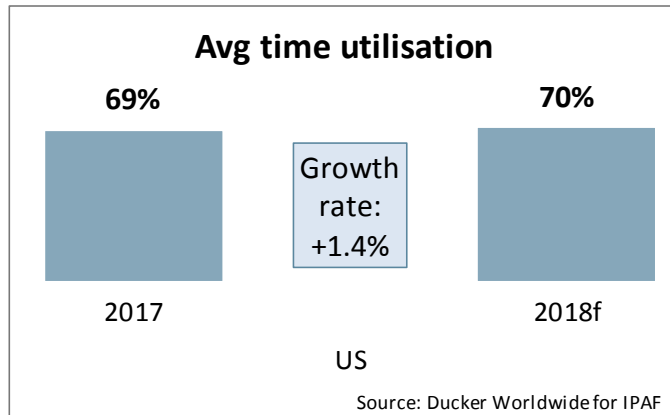
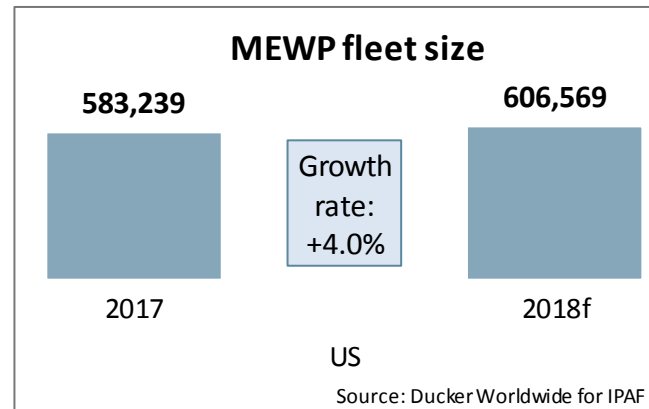
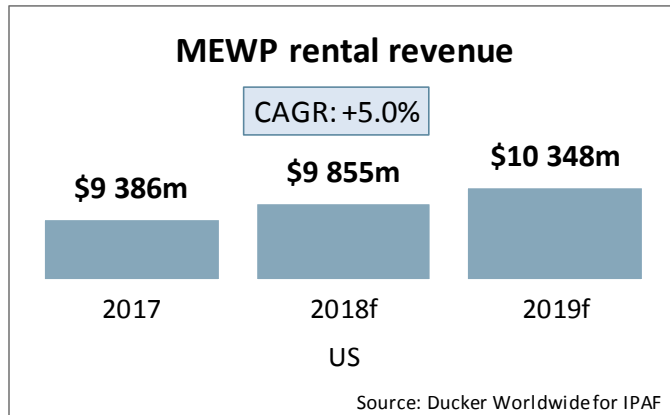
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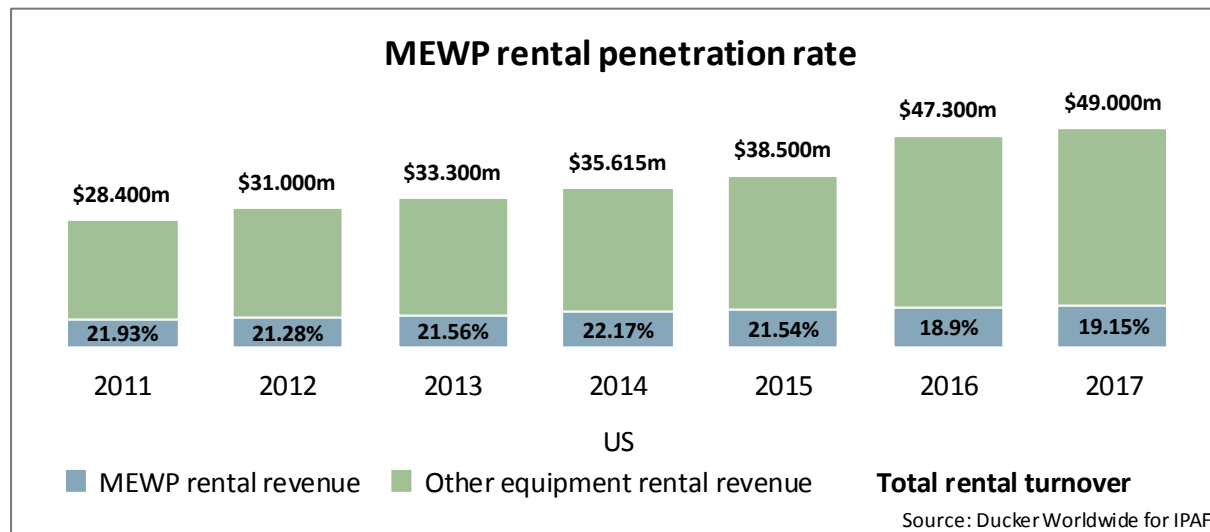


All major indicators show positive and sustainable growth for the US MEWP rental market. The market is driven by a combination of strong demand for MEWP equipment as compared to supply. In addition, the national market enjoys favorable government policies linked to the new administration.





The share of the MEWP rental revenue compared with the overall equipment rental revenue increased slightly in 2017 (Source: ARA).



ARA overall equipment rental revenue includes:

1. Party & Event
2. General tool
3. Construction & Industrial Equipment

ARA: American Rental Association  
ERA: European Rental Association

Exchange rate: \$1  
= €0.801

ERA overall equipment rental revenue includes:

1. General Plant
2. Tools & General Equipment
3. Access
4. Power generation & Temperature Control
5. Accommodation & Fencing
6. Industrial Machinery
7. Crane

# MARKET SIZE AND DYNAMICS 2008 – 2019

## IPAF Powered Access Rental Market Report 2018 – USA

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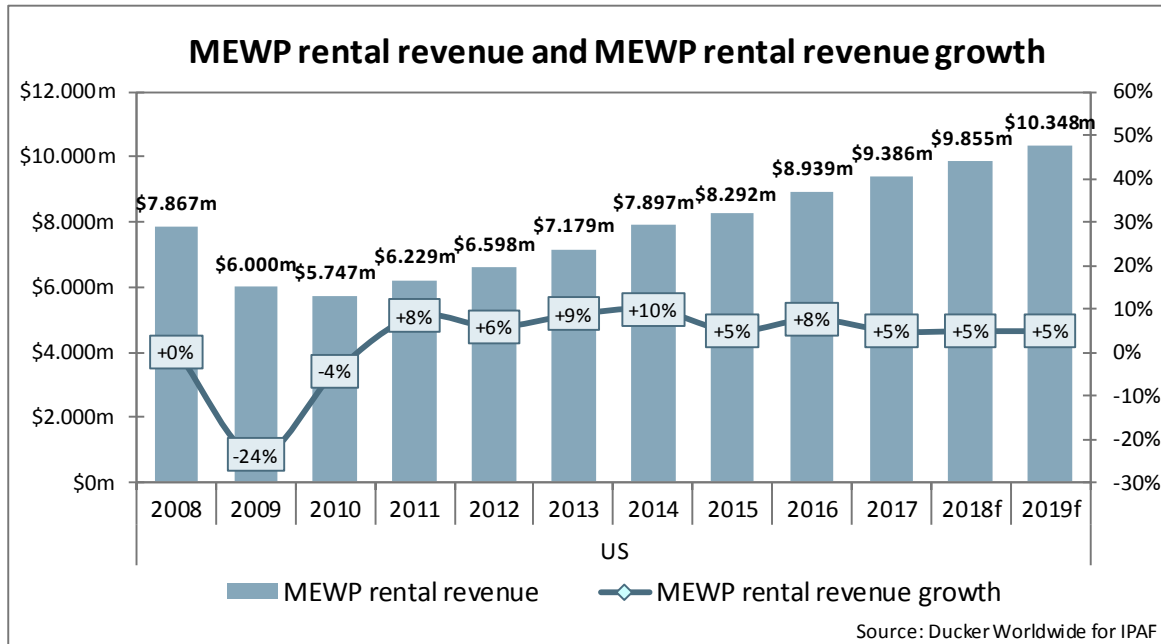


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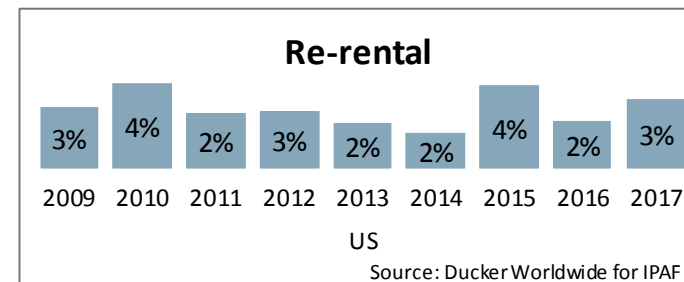
## MARKET SIZE & DYNAMICS – MARKET VALUE GROWTH

In the US, revenue from MEWP rental activity grew by 5% in 2017, primarily driven by fleet expansion and an increase in construction projects. The growth is expected to remain consistent until 2019, and companies are opting for more sustainable growth in order to avoid repeating past mistakes deriving from rapid over-expansion during boom periods.

- Many US rental companies said they were currently investing in expanding their business as a Republican administration is in power.
- New construction projects and post natural disaster reconstruction works are providing lucrative opportunities.
- However, with the economic crisis still fresh in people’s minds, companies are opting for more gradual/rational growth, rather than pursuing exponential/rapid growth.
- Companies are adopting a more conservative approach towards expanding their business, despite the positive market outlook.



Re-rental, ie cross-hire, decreased by 2% and represented around 2%, this level was also typical for the US market in the years 2013-2014.

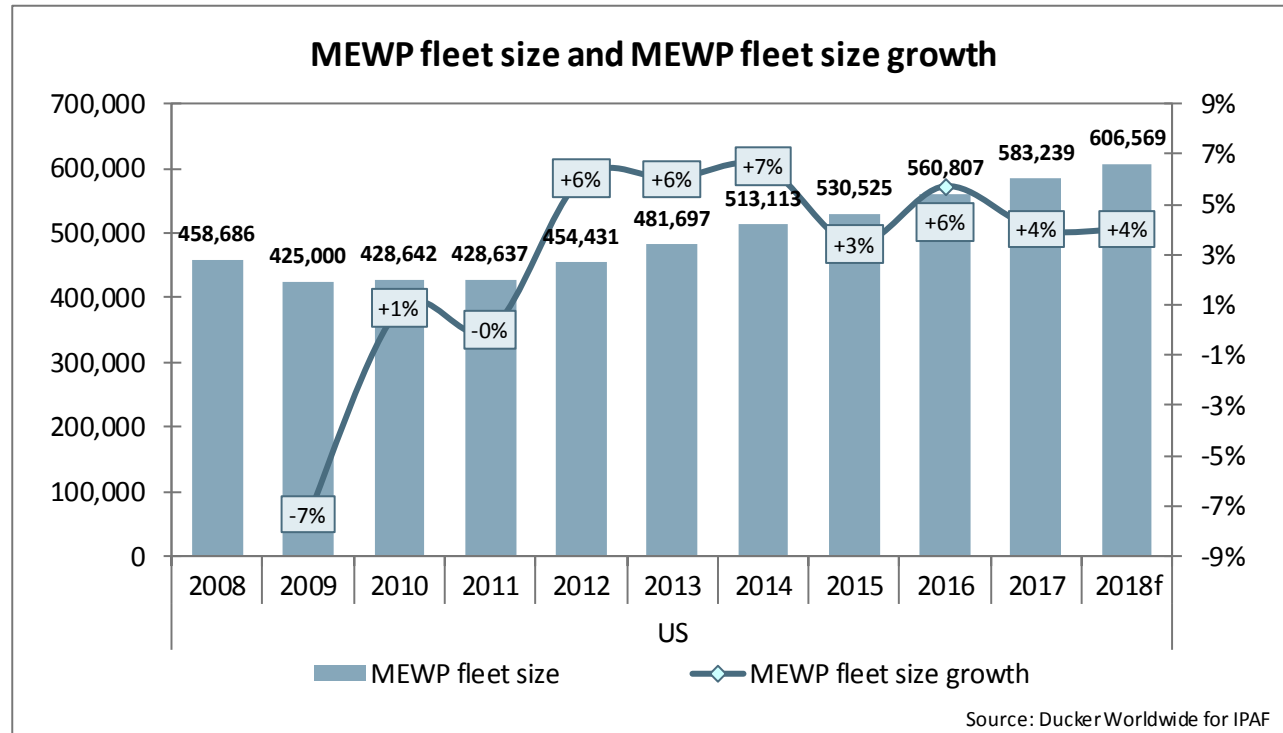


End-of-year data



Fleet growth has slowed down in 2017. However, the 4% growth rate is expected to remain consistent throughout 2018. The total size of MEWP fleet in 2017 was 583,239 and is expected to exceed 606,000 units by the end of 2018.

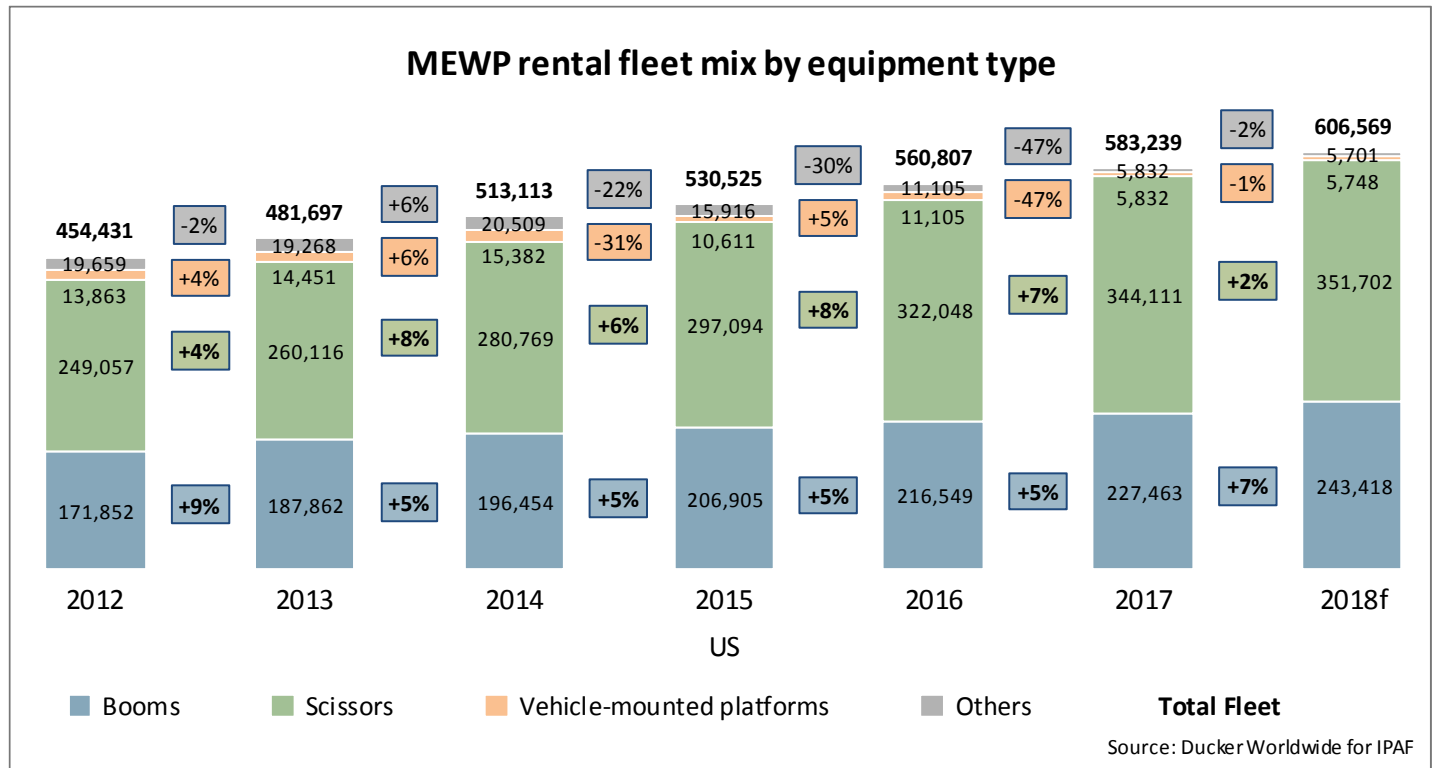
- As buildings get taller, the demand for bigger booms is expected to increase.
- In light of most companies pursuing sustainable growth strategies, the industry outlook is for consistent expansion of fleet size in 2017, 2018 and beyond. It is also possible rental companies are holding off investment in new MEWPs until the final ANSI standards update is published, to ensure new equipment will be compliant with requirements for tilt and overload sensing.
- Fleet size expansion has been relatively conservative, most likely to indemnify rental companies against any significant future fall in demand.



*Note: Included are powered access: all booms, scissor lifts and vertical masts;  
Excluded: Low-level access equipment (<10ft high), telescopic material handlers, forklifts, cranes, mast climbers;*

The number of scissor lifts in the US continues to increase at a slightly higher rate than the number of booms. The overall ratio between scissors and booms has historically been at roughly 60:40 in favour of scissors, and that hasn't changed.

- Scissors typically have a better return on investment and can be used for a variety of applications.
- In addition, scissors are popular as they can more easily be used in both indoor and outdoor applications.



*Note: Included are powered access: all booms, scissor lifts and vertical masts;  
Excluded: Low-level access equipment (<10ft high), telescopic material handlers, forklifts, cranes, mast climbers;*

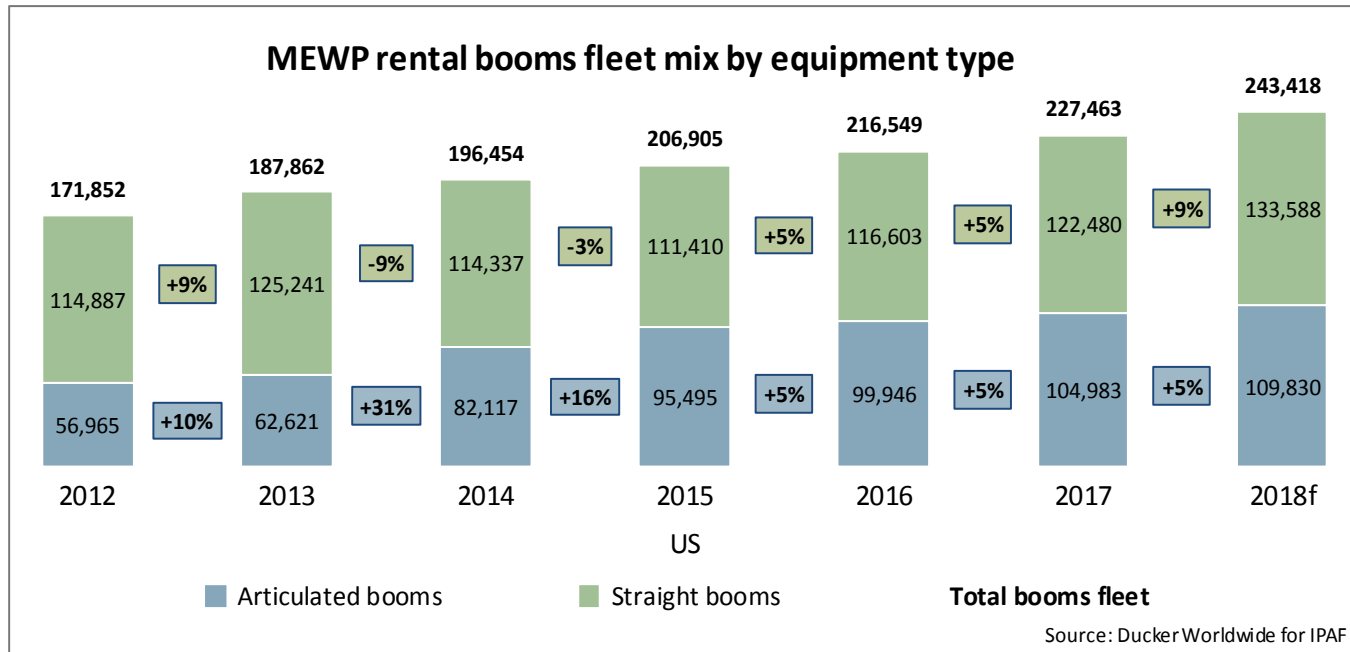
+X%

**% unit growth, eg boom fleet increased by 5% from 2016 to 2017**

*Other includes vertical lifts, vertical masts.*

Straight booms continue to dominate the US market. Both straight and articulated booms experienced similar fleet size growth in 2017.

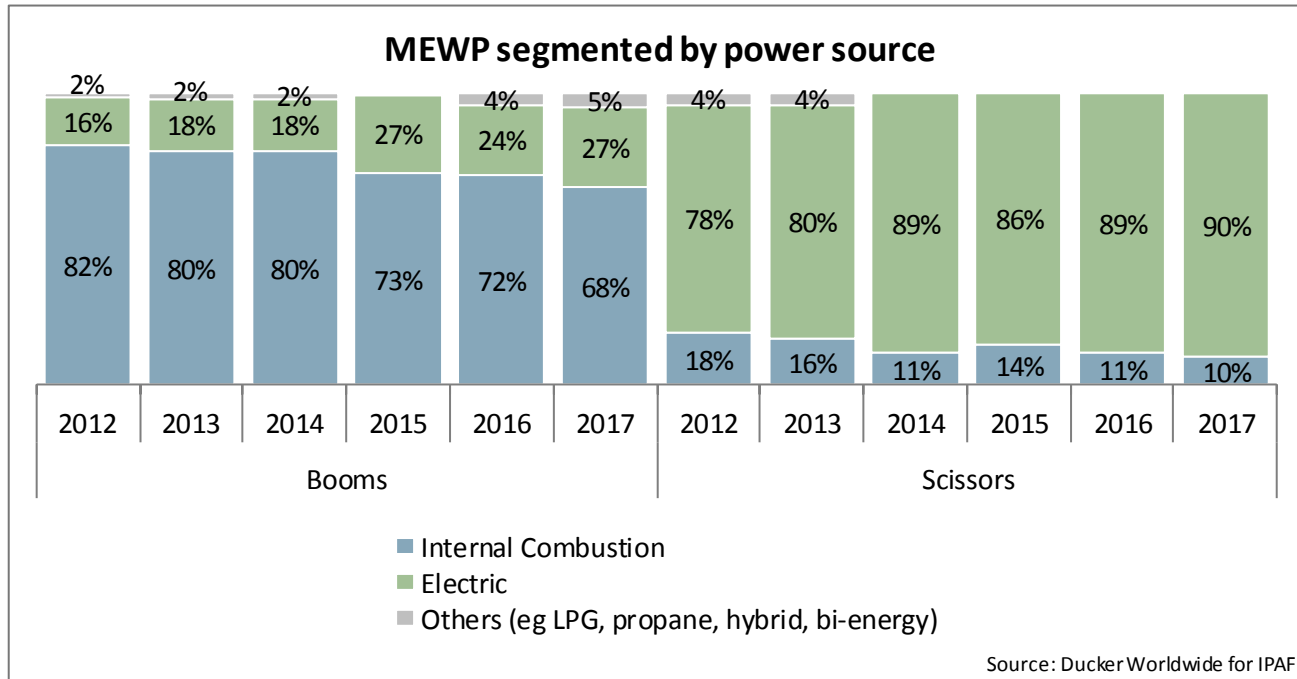
- The initial investment in straight booms is lower as compared to articulated ones.
- In addition, the available working space is a lower constraint than in Europe and straight booms are well suited for multiple construction applications.



*End of the year data*

The majority of scissor lifts in the US are electric powered while the majority of booms are powered by internal combustion. However, electric and hybrid power is becoming increasingly prevalent in both scissors and booms.

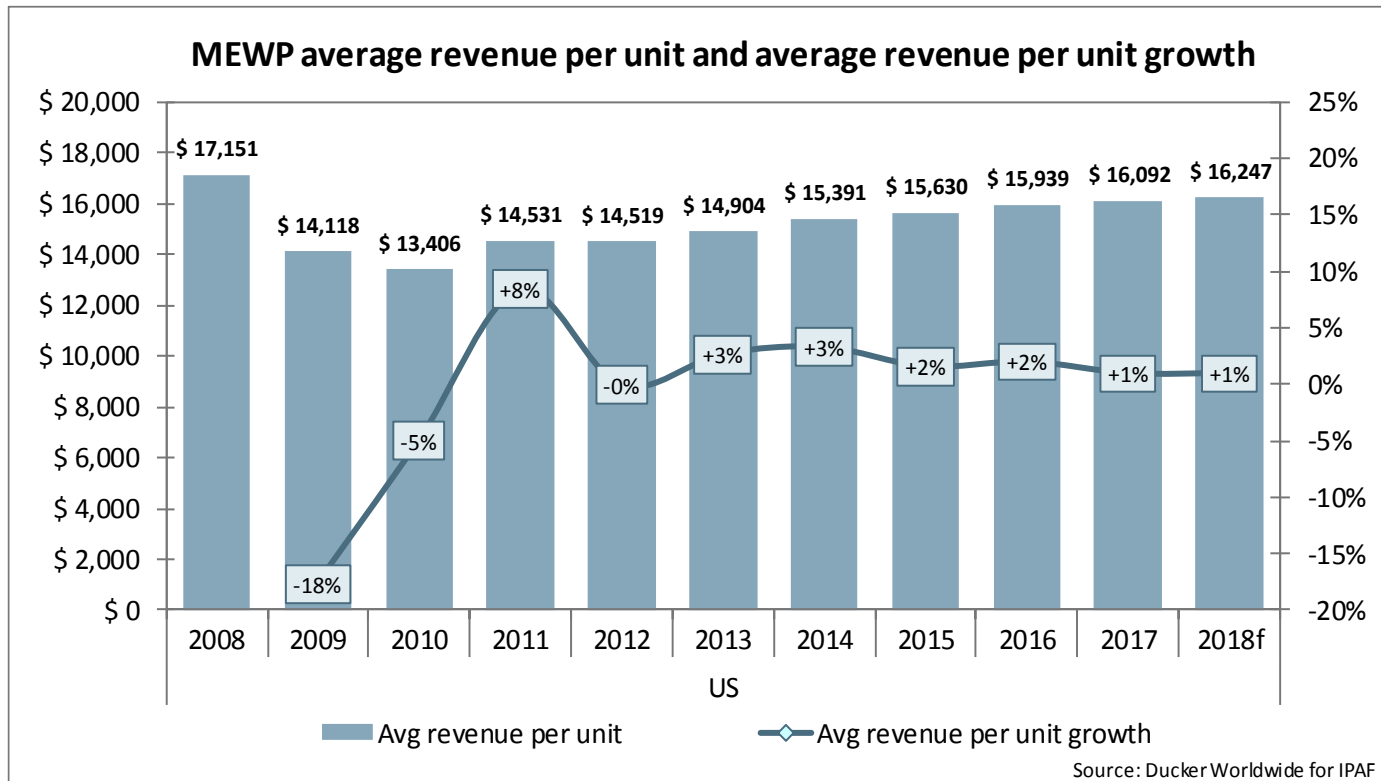
- The switch towards electric power sources is expected to increase further, driven by environmental constraints.
- Scissors are traditionally more likely to be electric powered owing to the fact that they are predominantly designed for indoor applications.



*Percentage of fleet powered by electric vs diesel engine.*

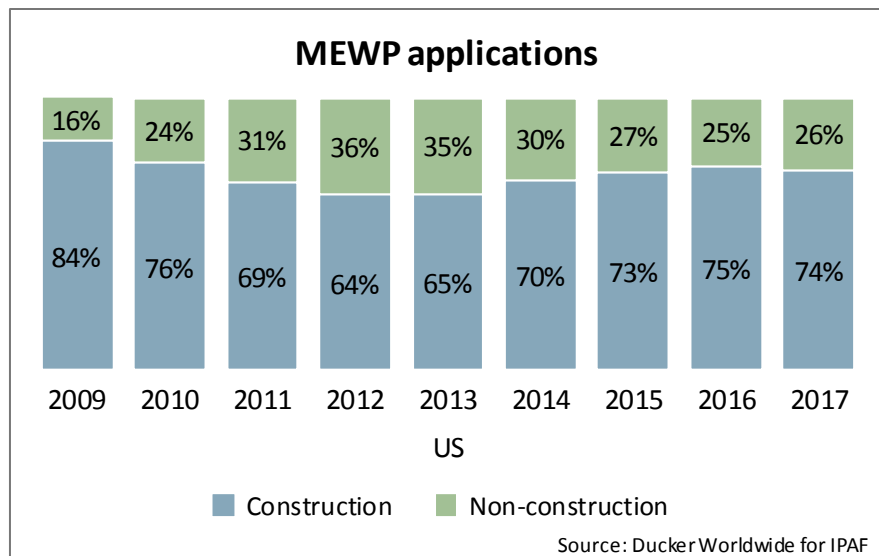
Average revenue per unit grew by 1% in 2017 and is projected to grow at the same rate in 2018. This growth is mainly linked to improved rental rates and a slight increase in the utilisation rate.

- Average revenue per unit growth has remained more or less consistent over the past four years. This trend is expected to continue in coming years.



In 2017, the construction sector accounted for almost three quarters of total MEWP rental, confirming the dominance of the sector in terms of MEWP end uses.

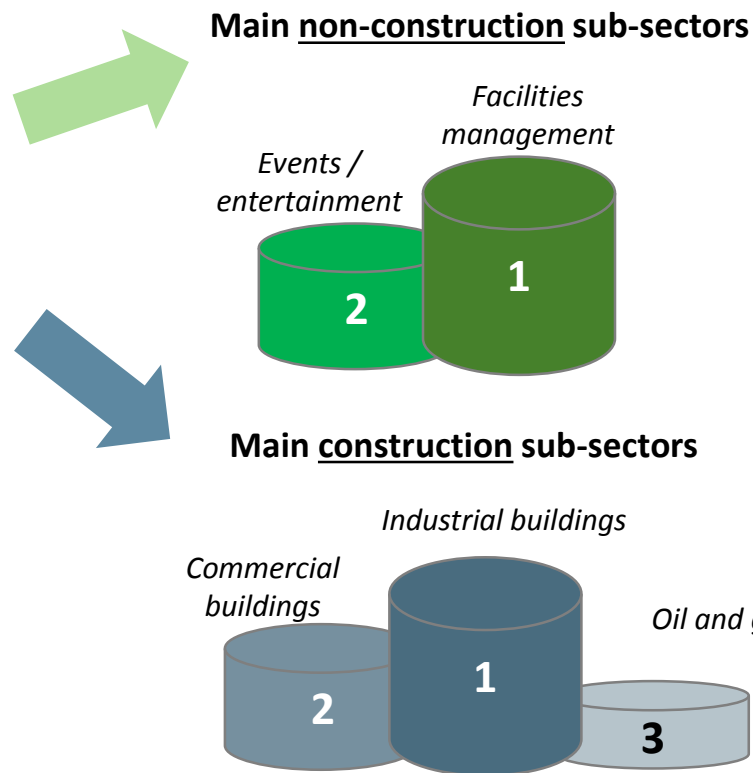
- The US MEWP rental market is traditionally heavily oriented towards the construction sector.
- As in 2016, facilities management dominates in terms of non-construction uses.



Share of rental revenues

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

Construction includes new build and renovation; including all types of buildings, also industrial.



# INVESTMENT 2008 – 2019

## IPAF Powered Access Rental Market Report 2018 – USA

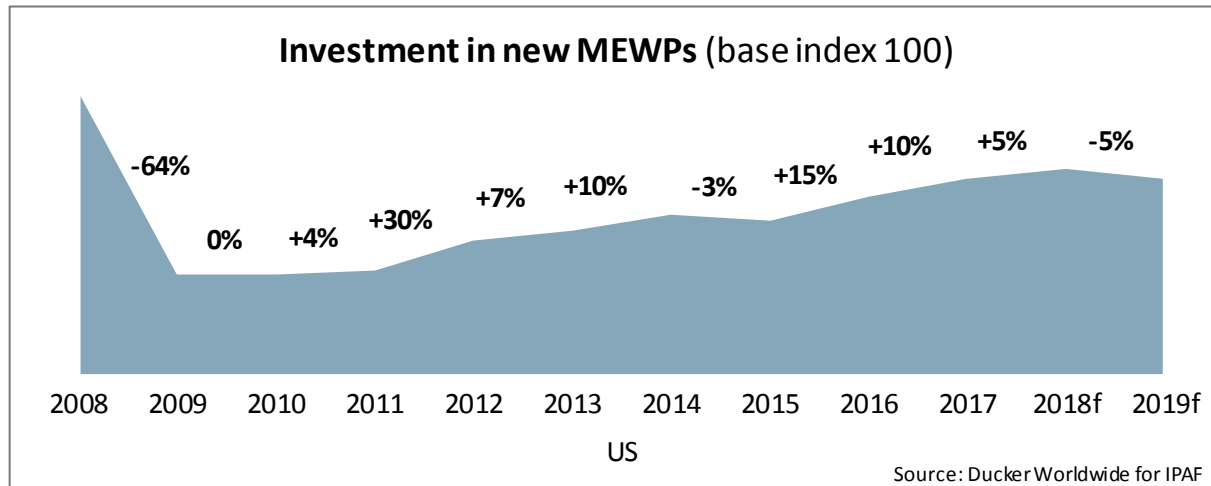
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Investment in new MEWPs grew by 10% in 2017 as compared to 15% the previous year. This was largely down to fleet replacement and expansion.

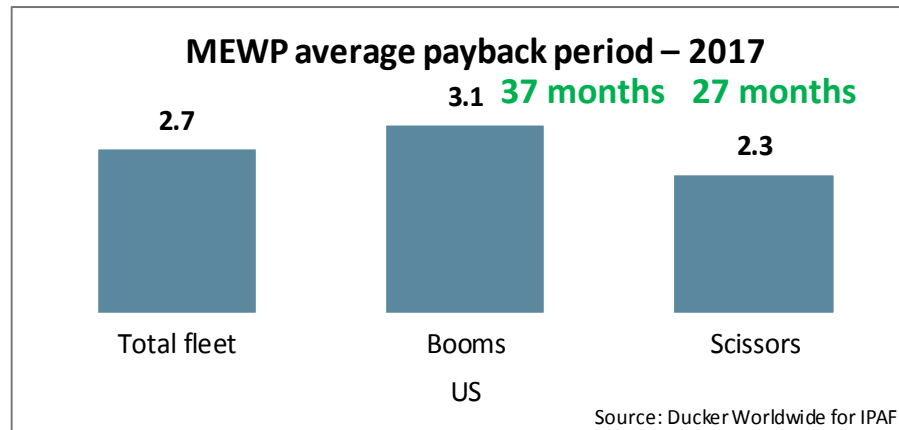
- The typical natural life cycle of fleets and favourable government policies contributed to an investment growth rate of 10% in 2017.
- It was also reported that future regulations and new standards were expected to increase the cost of new machines so many rental companies had planned this into their investment strategy.
- Investment was expected to decline after 2018, with many rental companies maintaining a cautious attitude towards future fleet expansion, and/or intending to reduce investment from 2019 onwards.





Traditionally, booms have had a longer payback period than scissiors. This trend is expected to continue in the near future as well.

- The higher utilization of the US fleet combined with increasing rental rates allowed for a reduced payback period.
- A combination of using articulated booms and electric scissiors, provides a better payback period for US firms as compared to their European counterparts.



*2.7 = 2 years and 7 months*

# OPERATIONAL ASPECTS 2008 – 2018

## IPAF Powered Access Rental Market Report 2018 – USA

*The International Powered Access Federation*

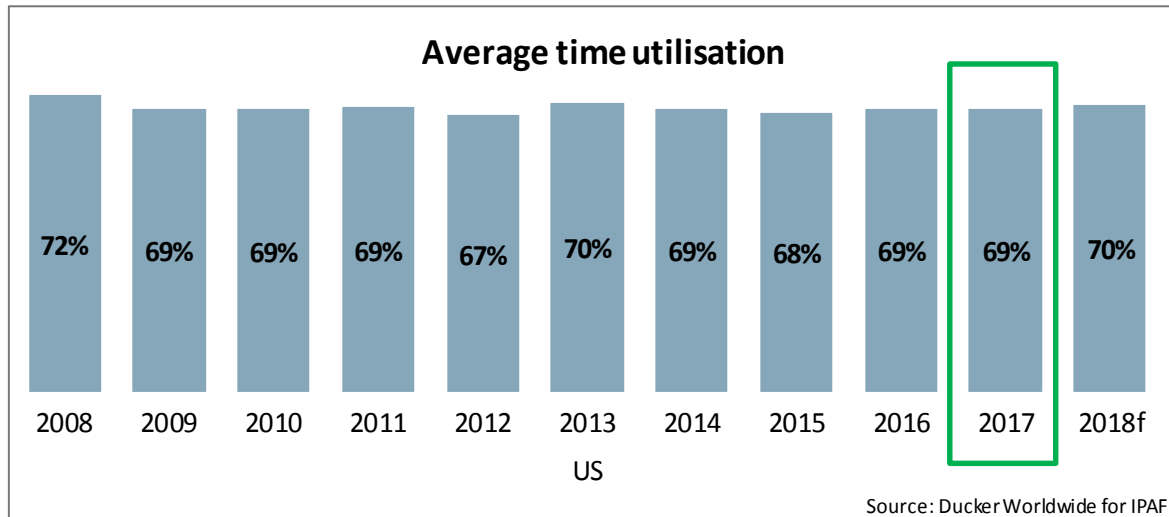
*[www.ipaf.org/reports](http://www.ipaf.org/reports)*



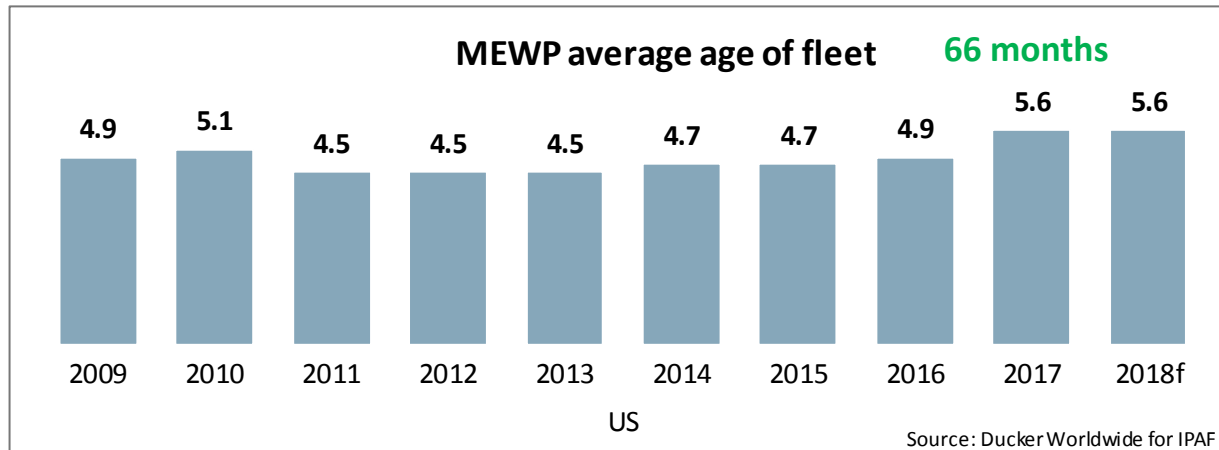
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The utilisation rate remained a consistent 69% from 2016 to 2017. It is projected to increase by 1% this year.

- Larger fleets usually tend to have a slightly lower utilisation rate than smaller fleets.
- For most companies, once a utilisation rate of 70% is reached, it is an indication, to add more to their fleet.
- Companies consider that an average utilisation rate of 70% allows sufficient time for machine maintenance and turnaround, and that it is not practical or desirable to pursue a higher utilisation rate.



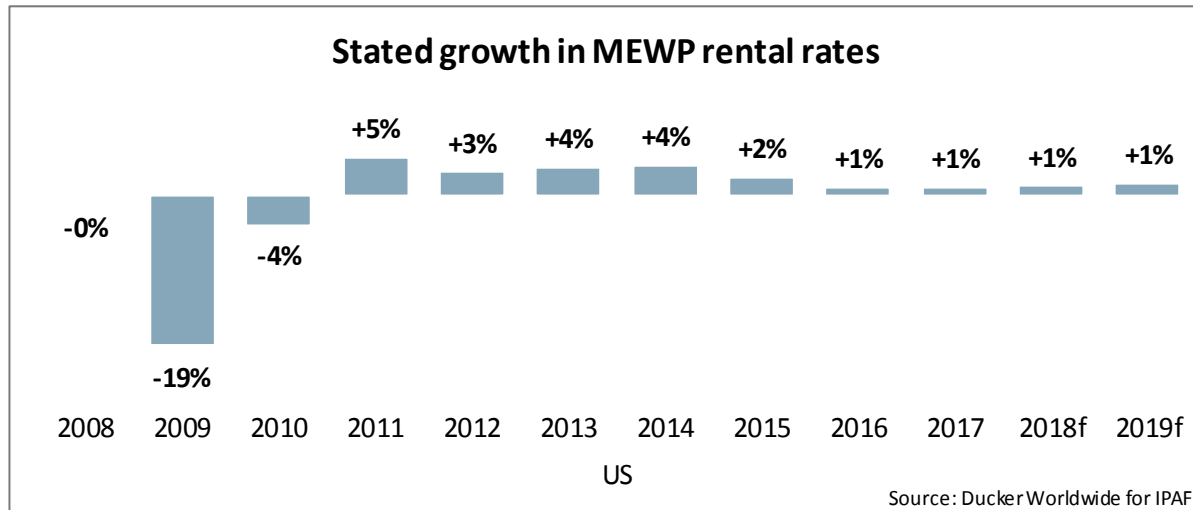
As more modern and robust equipment enters, the average age of MEWP rental fleets has increased from 4.9 years in 2016 to 5.6 years in 2017. Average life-span is not expected to change this year.



**5.6 = 5 years and 6 months**

As the market has not yet reached saturation, rental rates continue to grow and are expected to continue to grow by around 1% each year until 2019.

- Rental rates have almost plateaued with just slight increases each year.
- For most firms, rental rates inversely correlate to utilisation rates.
- Companies with lower rental rates are thus more likely to seek higher utilisation rates.



A growing demand is identified for all safety features, such as secondary guarding device.

- Similar to last year, safety features remain important in the US MEWP rental market.
- On-board generators come second for both boom and scissors lifts.

## Booms

1	<b>Safety features: secondary guarding device</b>
2	<b>On-board generator (for running tools or welding)</b>

## Scissors

1	<b>Safety features: secondary guarding device</b>
2	<b>On-board generator (for running tools or welding)</b>
3	<b>Narrow width machine</b>

Other mentioned features are:

**Remote control from the ground,  
higher load capacity/additional  
weight in the basket, and  
alternative source to lead acid  
batteries.**

# A PERSPECTIVE FROM THE MANAGING EDITOR OF *INTERNATIONAL RENTAL NEWS* IPAF Powered Access Rental Market Report 2018 – USA

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- There is nothing inevitable about continued growth in the US rental market, though sometimes it seems that way.
- The American Rental Association continues to forecast annual growth levels around the 5% market and United Rentals' CFO, Bill Plummer, speaking in October last year, said it was his view that the US rental market would remain at a high level for several more years.
- Mr Plummer made his forecast while simultaneously pointing out that predicting the timing of business cycles was as much an art as a science, and one that has proven very difficult for the rental industry to master. That remains true, but in the absence of any major shocks it does appear that US rental companies will operate in a favourable environment for the next year or two.
- There was a hint of a slowdown a few years ago when the oil and gas price reductions led to a reduction in investment in shale-based resources, but that dip has been weathered and overcome.
- What that means, in all likelihood, is a continued climate of mergers and acquisitions, which has had a major impact on the access sector. Sunbelt Rentals alone has made more than ten acquisitions in the past 18 months in North America, while United Rentals has continued to make bolt-on additions, with the takeover of Neff Corp – after a brief battle with H&E Equipment – following the headline deal for NES.
- In the first months of 2018, several of the biggest rental companies were also benefitting from the new Federal Tax Cuts and Jobs Act: for United this meant a benefit of more than US\$650 million for its 2017 financial year, while HER Rentals reported a \$207 million gain. If President Trump can also deliver on his much-discussed infrastructure plan – a long way from a given – then it will only serve to improve market conditions for the rental sector.





- The US access market is also going through some significant technical changes, with new ANSI regulations introducing the concept of load measurement in the platform, leading to the dual capacities and variable working envelopes already familiar in the European market. It is probably a good thing that these changes, which require investment in training not to mention the cost of the machines, are happening at a time of good market conditions.
- North American manufacturers are also at the vanguard of trialling and introducing new technologies, reflecting the impact of digital and other emerging technologies. JLG, for example, highlighted at the IPAF Summit in Miami in March 2018 the potential of self-levelling systems and digital monitoring of platforms, as well as self-loading and – unloading of platforms, something that would be welcomed from a safety perspective.
- North American manufacturers and rental companies – and IPAF – are also among the first to push the use of augmented reality for training and repair and maintenance activities.
- The access industry is not usually a first-adopter when it comes to this kind of technology, but it is likely that it will be the world’s biggest players in North America who will be the pioneers. That much, at least, is probably inevitable.

# MARKET TRENDS AND DRIVERS

## IPAF Powered Access Rental Market Report 2018 – USA

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Mergers and acquisitions remain attractive in this market as opposed to organic growth. Falling/lower global oil and gas prices have negatively impacted some core MEWP rental markets in the US, but those effects are less pronounced than in previous years. Cross-hire is not very common in the US.

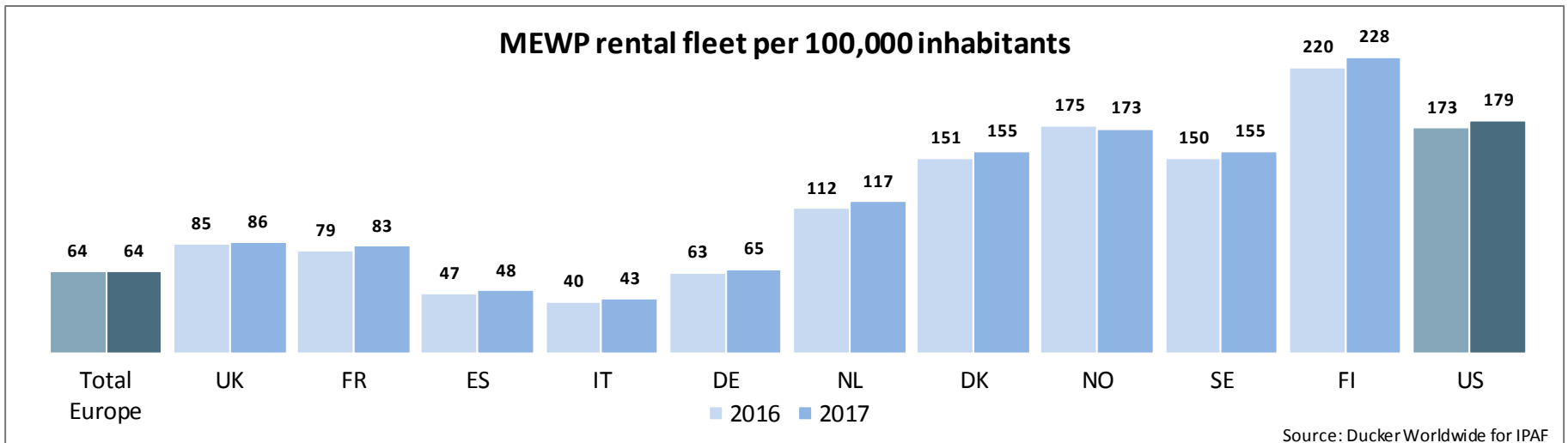
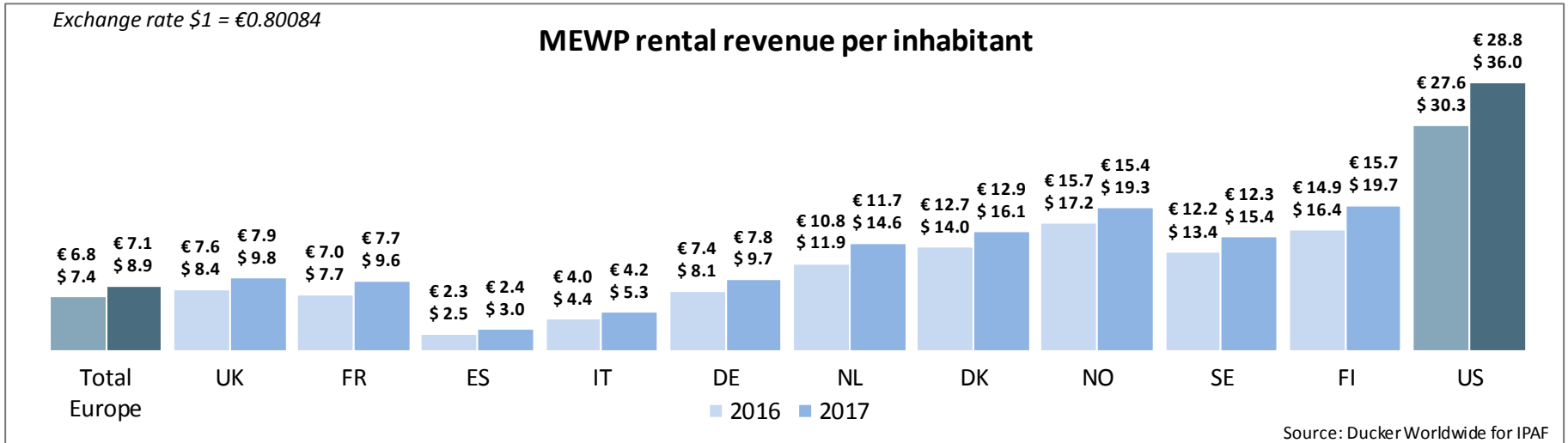
### **MEWP new safety standards**

- The market is well aware of the new ANSI and CSA related safety standards
- Even though the market is informed about these new regulations, they are yet to be published in the US, though they were published in Canada in May 2017, and effective from May 2018.
- New standards are having a significant impact on both the machine manufacturers and operators.
- Compliance with safety standards is a learning curve to which the market will adjust.

### **Rental companies' market concentration**

- Market sentiment is quite positive, so many large companies are on the hunt to acquire smaller players in order to consolidate market share.
- Several major acquisitions took place last year, and leading players have confirmed their dominant position in the market.
- This trend is expected to continue in the coming years with mergers and acquisitions expected to be a common trend in the immediate future.

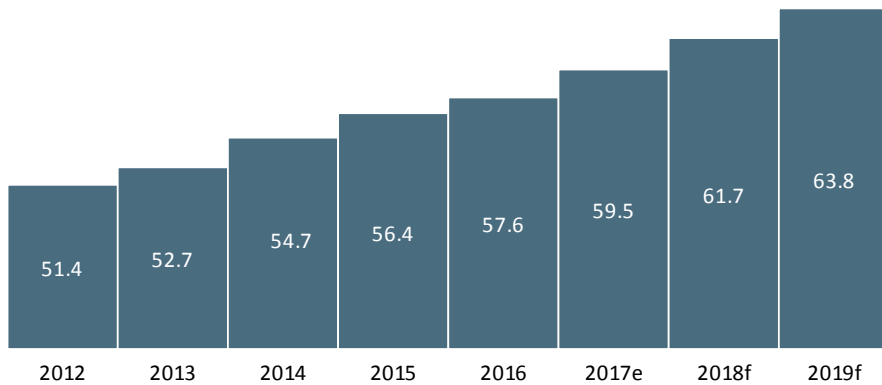
Country population penetration – MEWP rental revenue per inhabitant.



Most macro-economic indicators seem to have a positive outlook until at least 2019. Nevertheless, as unemployment rate is predicted to start rising again post-2019, forecasts remain uncertain regarding the 2020s.

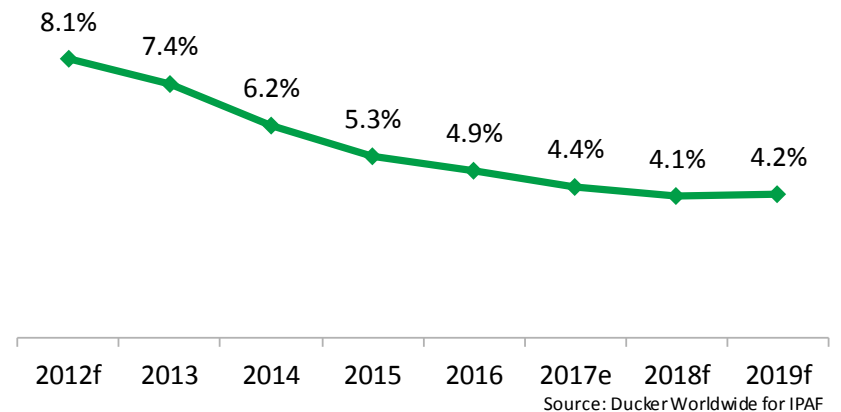
**Compound Annual Growth Rate CAGR (2017-2019): 3.55 %**

**US – GDP per capita**



*Thousand US dollars at 2017 prices.  
Source: International Monetary Fund, World Economic Outlook Database, October 2017  
CAGR = Compounded Annual Growth Rate*

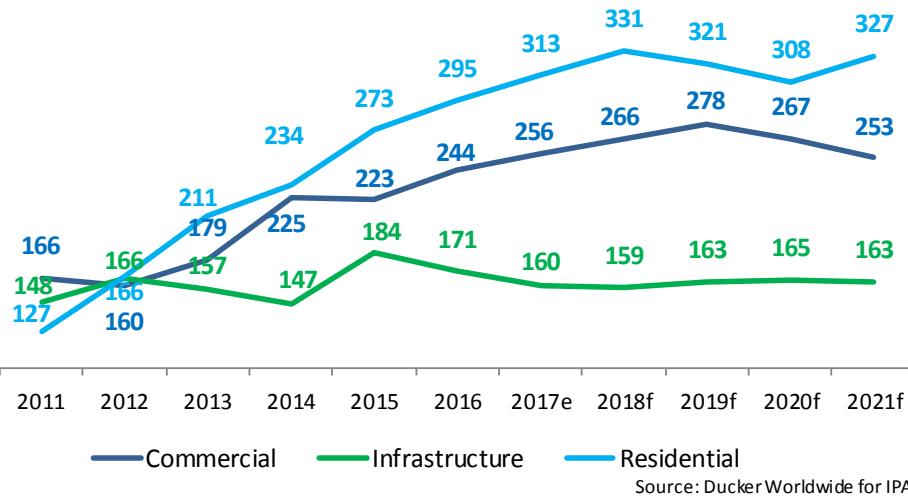
**US – Unemployment rate**



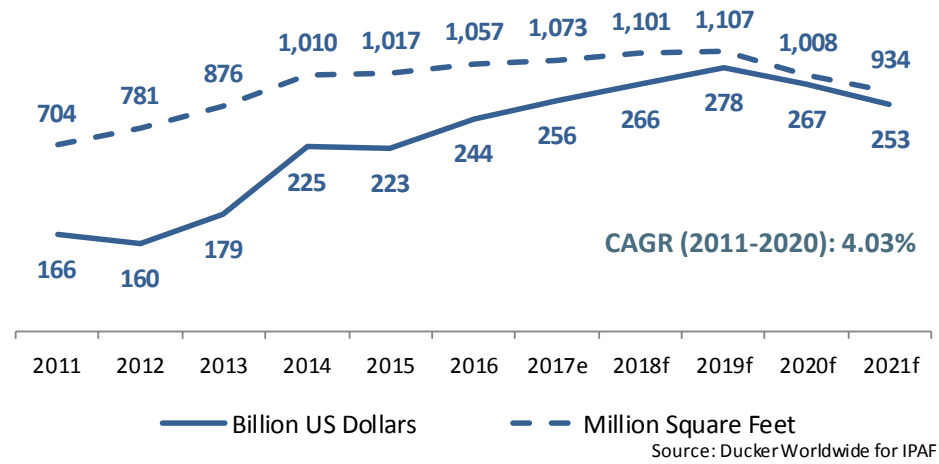
*Source: International Monetary Fund, World Economic Outlook Database, October 2017*

The construction sector has been growing overall up until 2018, nevertheless residential construction could decline in 2018, followed by the non-residential construction sector in 2019 and possibly beyond.

### Construction pipeline



### Non residential construction pipeline



Source: McGraw-Hill Construction, Dodge Construction Outlook 2017

# CANADIAN MEWP MARKET

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In 2017, the MEWP rental Canadian market experienced a significant growth after several years of relative stagnation. Outlook is positive for the next few years.

- Total MEWP rental revenue increased by at least 5% in Canada in 2017. Several factors drove the market growth:
  - Overall the economy is getting stronger and the past impact of downturns in the oil and gas sector are diminishing.
  - The construction sector has taken off and several new projects are beginning: Residential construction in particular showed strong and sustained growth and the outlook is positive.
  - Some US companies have started opening new branches or taken over existing companies in Canada.
  
- While growth in the past few years has been only moderate (approximately 1% growth rate reported in 2016), the Canadian MEWP fleet size expanded rapidly in 2017, by around 8% to reach almost 68,000 units.
  - The fleet mix has not changed much and scissors still dominate the Canadian MEWP rental fleet.
  - After decreasing over the past few years, the share of booms is set to increase slightly again.
  
- Similar to other market indicators, utilisation increased by 2% in 2017, and reached a level of 69%.
  - Some rental companies expect it to increase again in 2018, by another 2%.
  
- As forecast in last year's report, rental rates stopped falling/stabilised in 2017. Some rental companies even managed to increase them in 2017 by 3-4%.
  - A similar growth trend is expected for the coming years as optimism returns to the Canadian market.
  - Rental companies remain cautious about longer-term forecasts.



# THANK YOU.

The International Powered Access Federation (IPAF) is a not for profit members organisation that promotes the safe and effective use of powered access equipment worldwide. Members include manufacturers, rental companies, contractors and users.

Offices in: UK, Brazil, China, Finland, France, Germany, Italy, the Netherlands, Singapore, Spain, Switzerland, UAE, USA.

[www.ipaf.org](http://www.ipaf.org)

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# COUNTRY REPORT – SPAIN

IPAF Powered Access Rental Market Report 2018 – Europe

*European Association Award-winner for Best Provision of  
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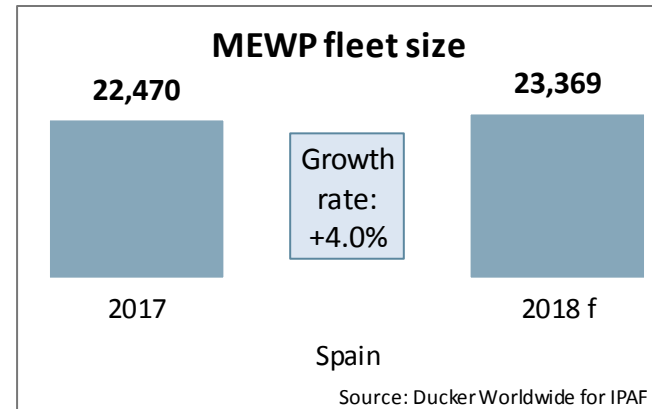
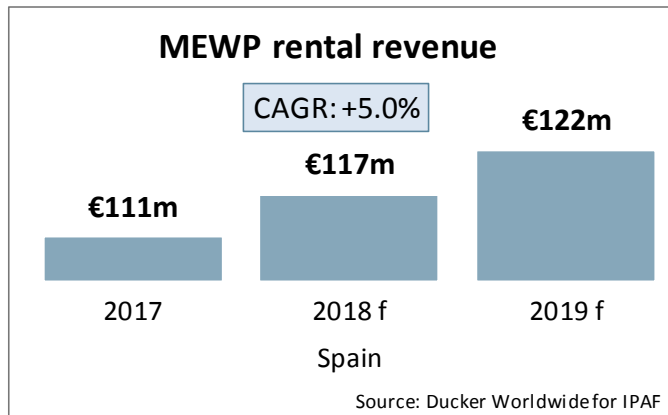
**THE EUROPEAN  
ASSOCIATION  
AWARDS 2018**

**BRONZE**  
Best Provision of Industry  
Information and Intelligence

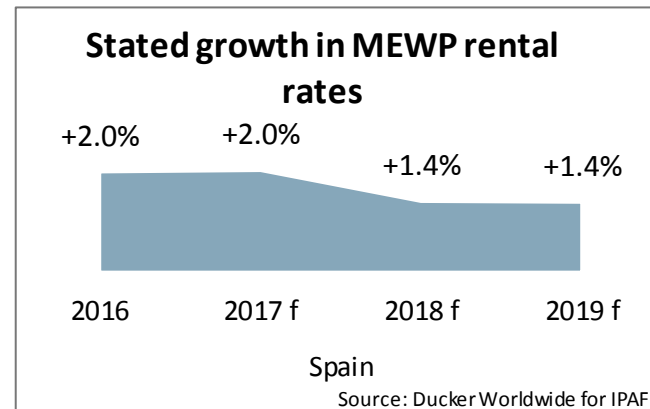
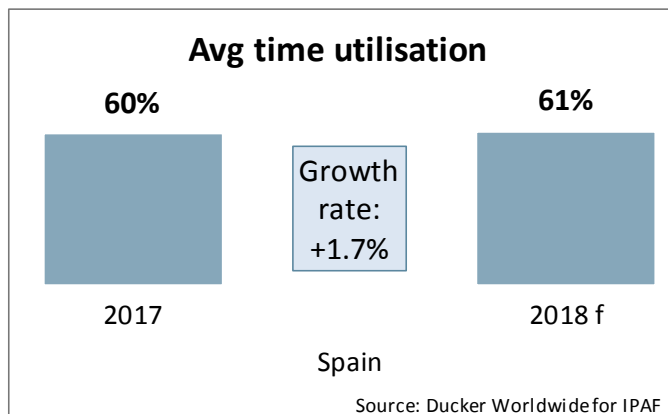


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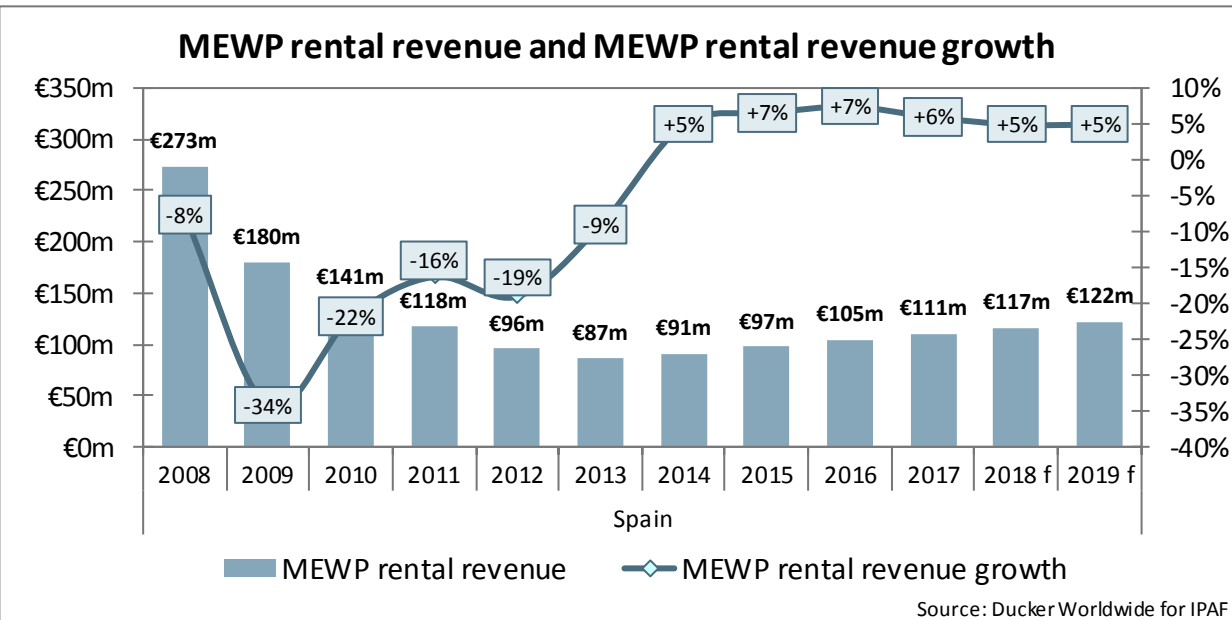
The MEWP rental market in Spain has entered a phase of sustained growth. All indicators are positive, although at different pace.



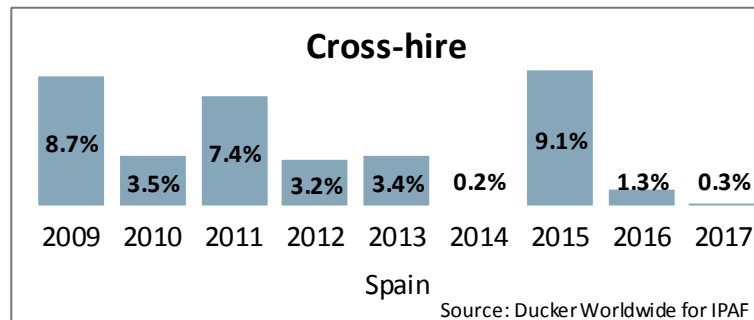
- The Spanish MEWP rental revenue is growing at a consistent level every year, as the market recovers and demand increases.
- Time utilisation and rental rates are expected to experience more moderate growth in the coming years.



The MEWP rental market has exceeded a value of €110 million in 2017. Outlook for the next few years is positive and the market is progressively recovering although still challenged by some financial issues.

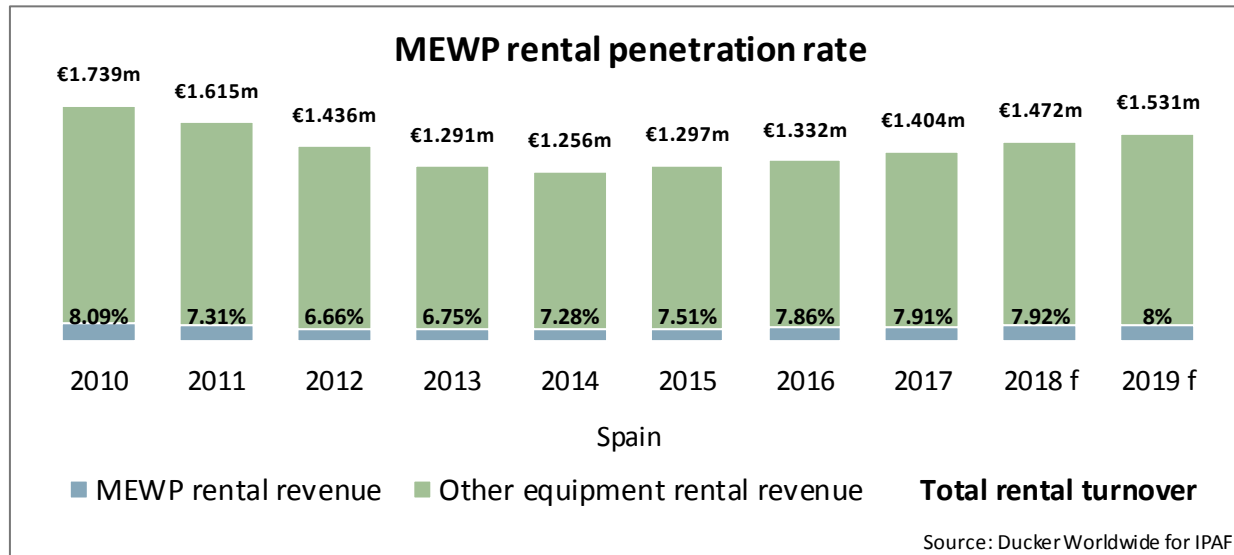


- The Spanish MEWP rental market continued to grow in 2017 for the fourth year in a row (6%) after hitting its lowest level in 2013.
- Further market growth is expected in the next few years. Nevertheless, rental rates remain low and total market revenue is still way below pre-recession levels.
- Relative prudence prevails in the Spanish market and companies are contemplating what the future will bring, while remaining positive about future market evolution.
- In 2017, the level of cross-hire was negligible. Companies extended fleets and needed limited additional MEWP units from other rental companies.



The MEWP rental market is slowly but progressively gaining share among total rental activity. MEWP rental penetration in Spain is the lowest among all European countries under study (source ERA).

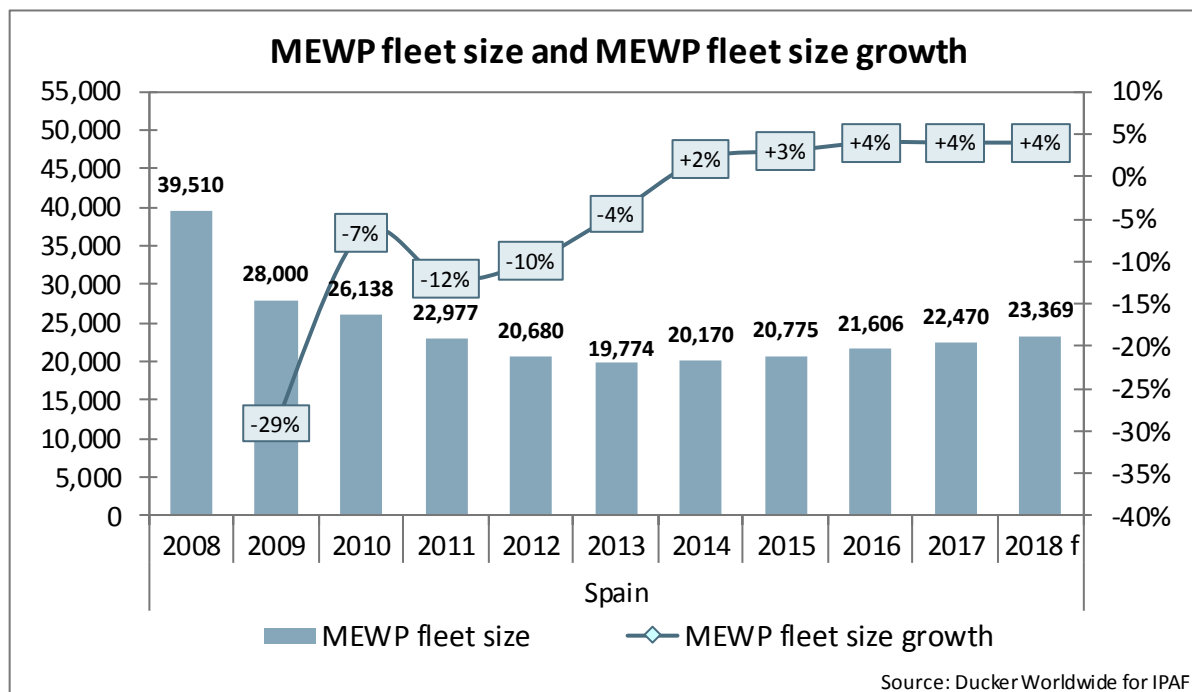
- MEWP rental penetration is getting closer to 8% and is expected to reach or exceed that level in 2019.



Source for Total Rental Turnover: ERA 2017 Report.

The pace of fleet expansion is progressively increasing and reached 4% in 2017. A stable level is expected in 2018 as current fleet development is forecast to satisfy existing market demand.

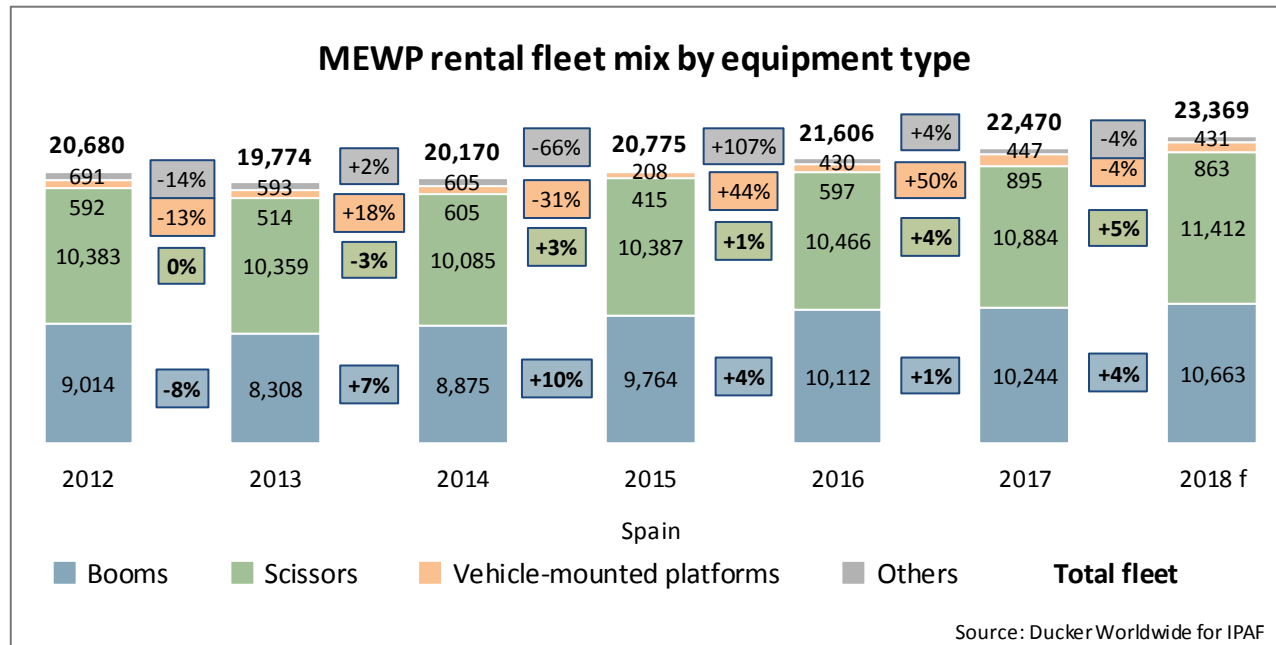
- As the Spanish market recovers, MEWP rental companies pursue fleet expansion plan at a stable level (4% increase every year on average).
- Total fleet size is expected to exceed 23,000 units in 2018, which still remains significantly below pre-recession levels.



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

The fleet mix is varying as expansion and renewal takes hold in the Spanish market, with all types of MEWPs being added to growing fleets.

- All equipment categories have been growing in 2017 as MEWP rental companies continue their fleet expansion.
- All main equipment categories, especially scissors and articulated booms, are in high demand.
- In addition, truck-mounted MEWPs are increasingly demanded: They are perceived as practical and don't require specialist transportation.



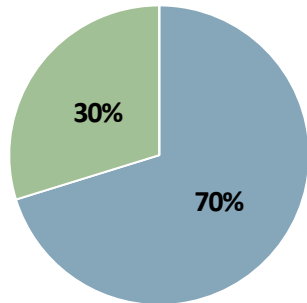
*Note: Included are powered access lifts: all booms, scissor lifts and vertical masts  
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers*

+X%      % unit growth, eg boom fleet increased by 1% from 2016 to 2017.  
*Others include: Vertical lifts, vertical masts, push-around, trailer mounted/towable.*

The proportion of articulated booms increased in 2017 as a share of the total MEWP rental fleet. Articulated booms are deemed more versatile thanks to their ability to maneuver around and extend beyond obstacles.

**MEWP booms fleet mix by type – Spain – 2016**

Total booms fleet  
(10,112)



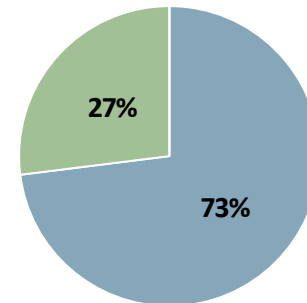
■ Articulated booms (7,100)

■ Straight booms (3,012)

Source: Ducker Worldwide for IPAF

**MEWP booms fleet mix by type – Spain – 2017**

Total booms fleet  
(10,244)



■ Articulated booms (7,479)

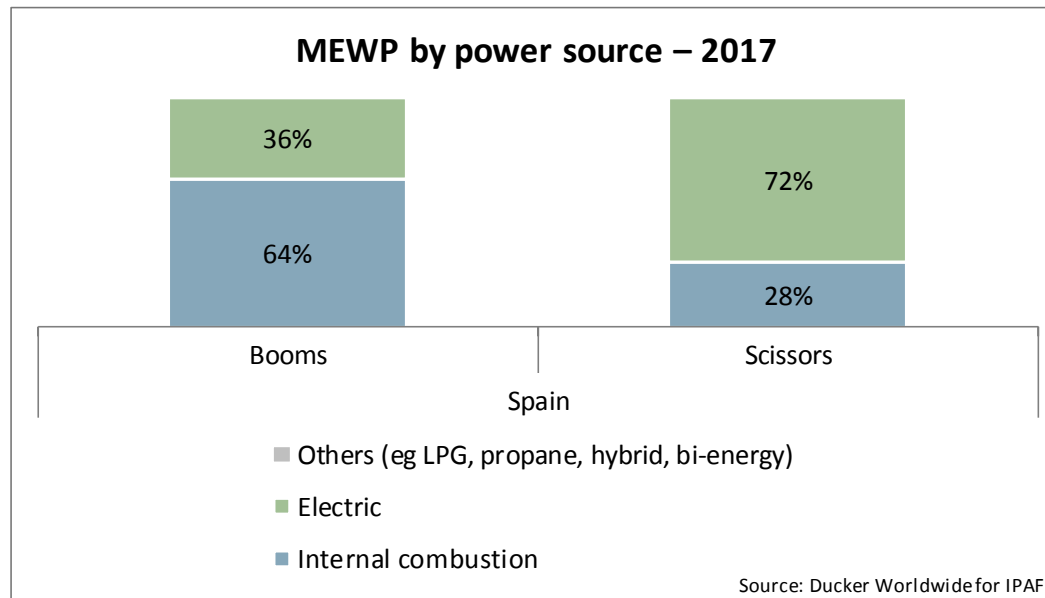
■ Straight booms (2,764)

Source: Ducker Worldwide for IPAF



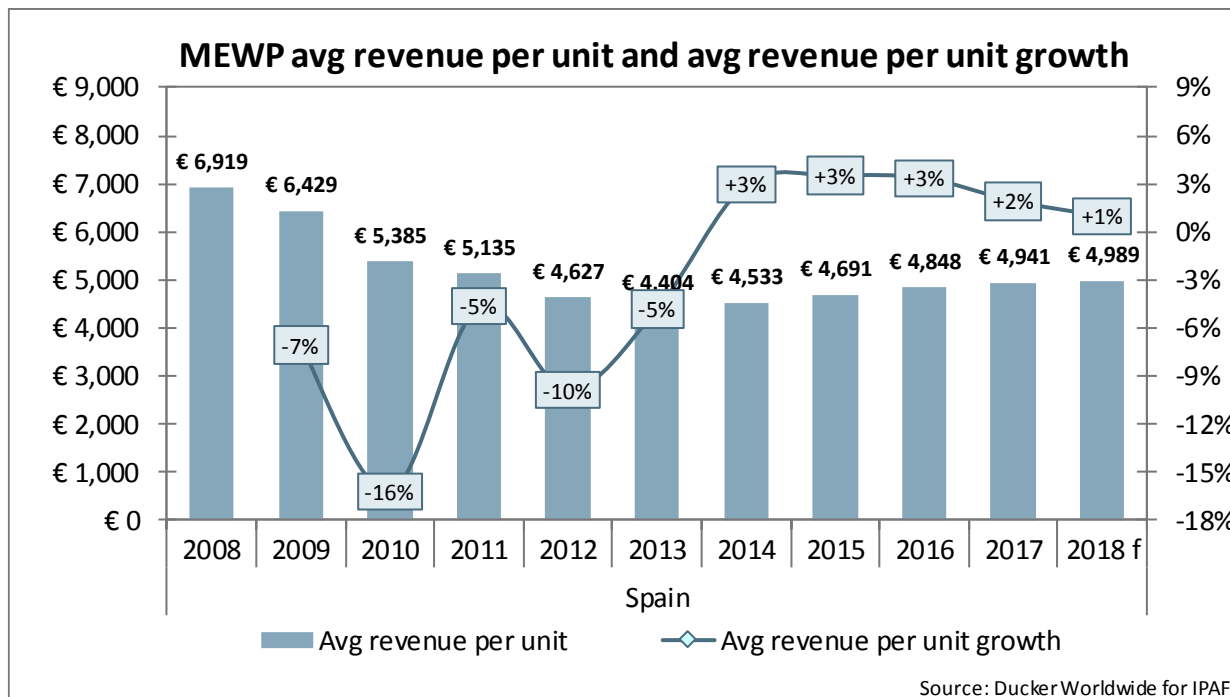
The Spanish MEWP rental market is following a similar trend as the rest of European countries under study, with an increasing preference for electric power sources in both scissors and booms.

- MEWP rental companies are investing in electric machines. This power source is highly sought-after in non-construction applications, as it can be used indoors.
- The scissors category is dominated by electric machines. In booms, internal combustion engines still prevail.



Average revenue per unit is slowly increasing in the Spanish market. It is expected to reach €5,000 in 2018, though that is still one of the lowest levels among the European markets under study.

- Average revenue per unit continued to increase in 2017.
- Nevertheless, the indicator’s growth is expected to continue at a more moderate level in the next few years, slowed down by further fleet growth, while rental and utilisation rates rose more slowly than in the past few years.

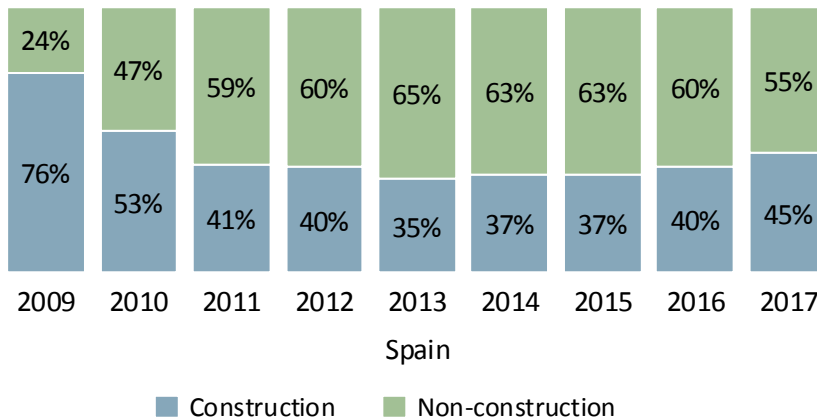


*Note: Included are powered access lifts: all booms, scissor lifts and vertical masts  
 Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers*

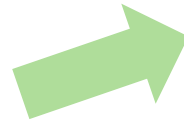
Both construction and non-construction sectors are currently growing. Though non-construction still dominates, recovered some of the share it lost during the economic downturn.

- Within the construction sector, non-residential construction has overtaken residential construction.

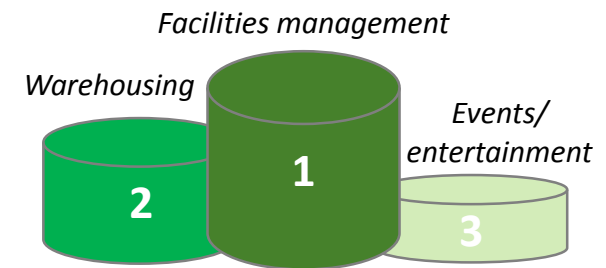
### MEWP applications



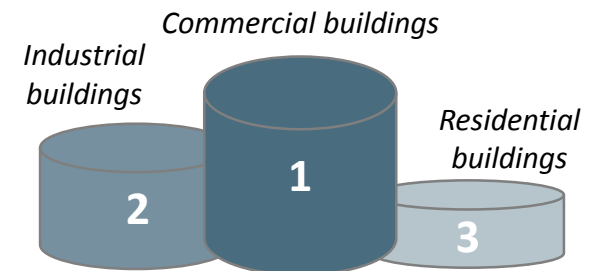
Source: Ducker Worldwide for IPAF



### Main non-construction sub-sectors



### Main construction sub-sectors



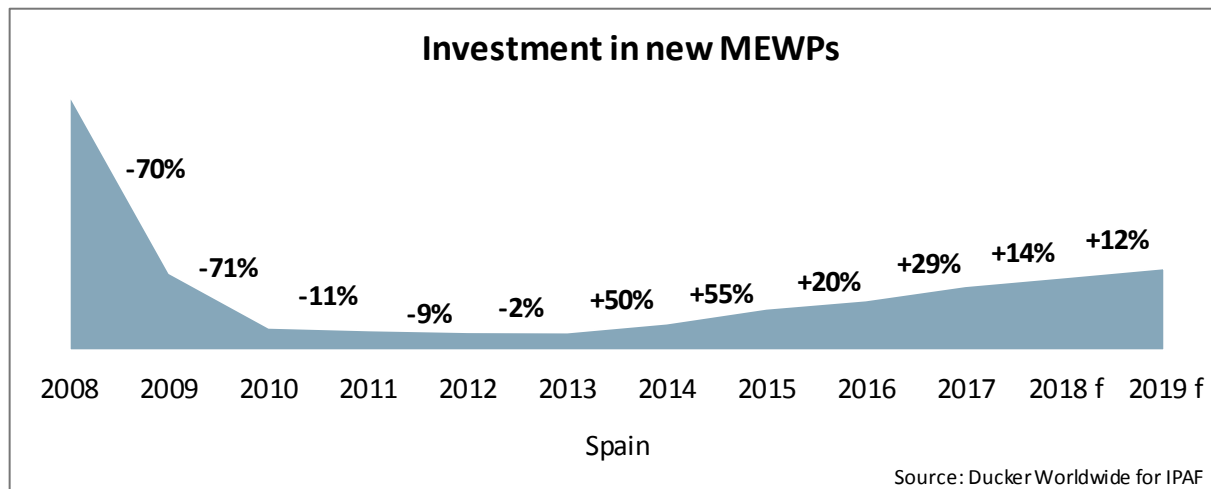
#### Share of rental revenues

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

Construction includes new build and renovation; including all types of buildings, also industrial.

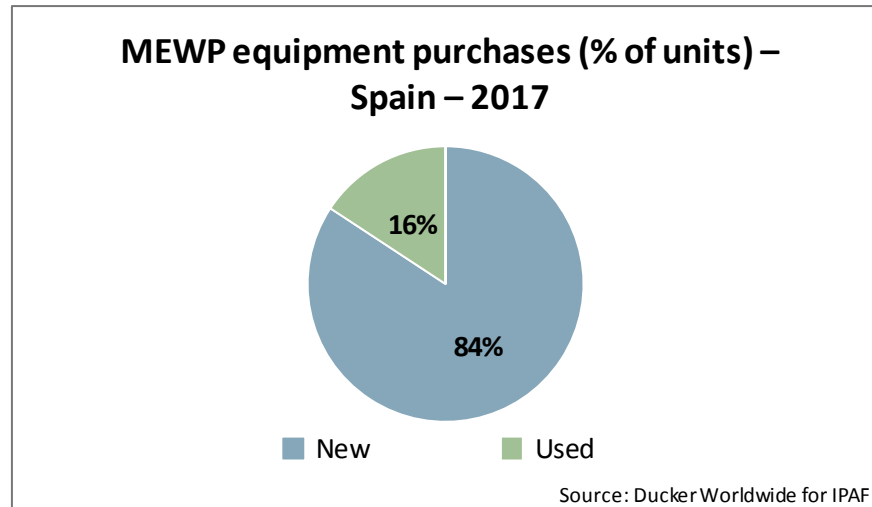
In 2017, the level of investment increased for the fourth year in a row. As the market is progressively recovering, MEWP rental companies are developing and renewing their fleets.

- Investments from MEWP rental companies are dedicated to both fleet renewal and expansion.
- Companies increasingly focus on purchasing electric equipment.
- Investment growth is expected to continue over the next few years.



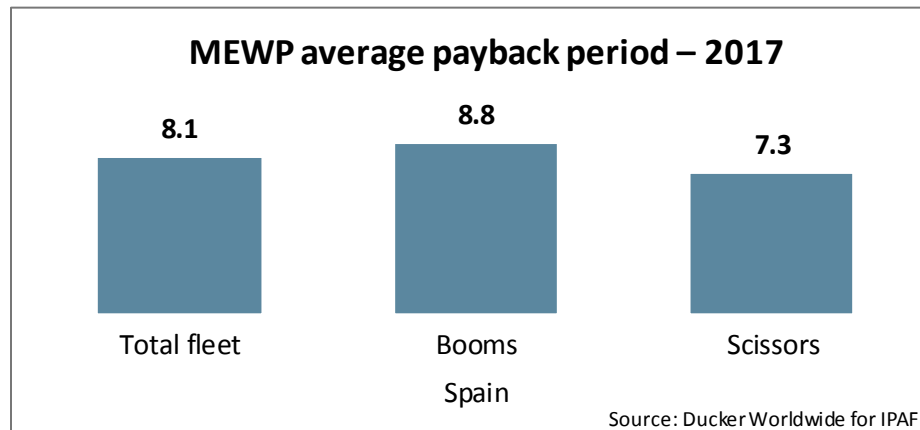
The share of used equipment purchased in Spain reached a level of 16% among total MEWP purchases in 2017.

- Spain is among the European countries under study where the share of used equipment purchases is the highest.
- While MEWP rental companies try to offer a majority of new equipment, used equipment does allow for a quicker payback in a market where revenue per unit remains low.



The average payback period has increased in Spain in 2017 and is now close to eight years. This relatively long payback period shows that, despite the market recovery, it remains hard for rental companies to ensure profitability.

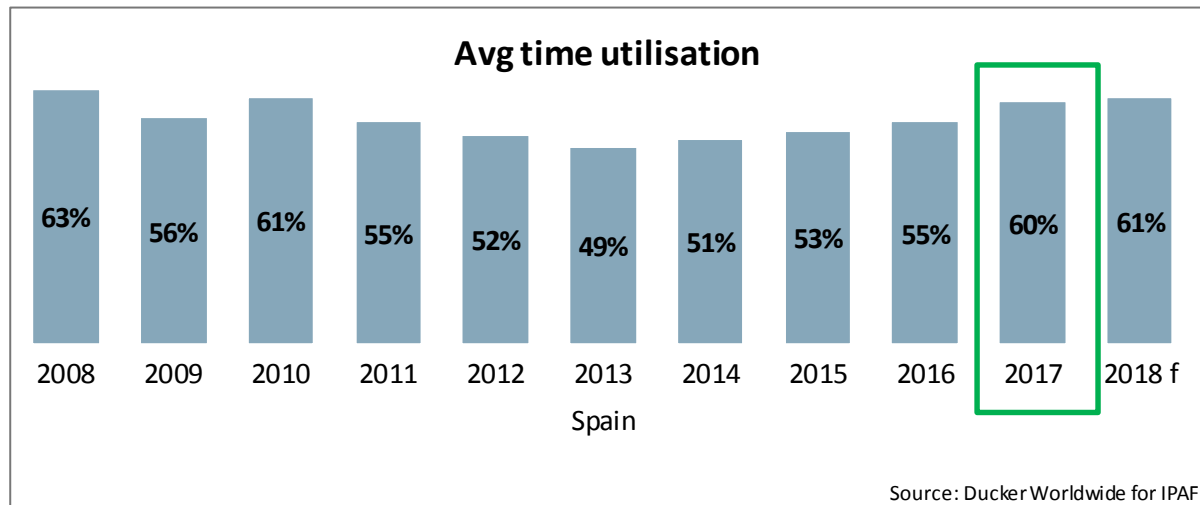
- Unlike last year, when both booms and scissors had a similar payback period, the average payback period for scissors is now shorter than for booms.



***8.1 = 8 years and 1 month***

As forecast in last year’s report, utilisation rate in Spain increased in 2017 and stands at approximately 60%. It is expected to remain relatively stable over the next few years.

- In 2017, it was unanimously reported that utilisation rates increased.
- Articulated booms are the equipment type with the highest reported utilisation rate.
- More moderate growth is expected for 2018, as the beginning of the year was slightly below what rental companies expected.



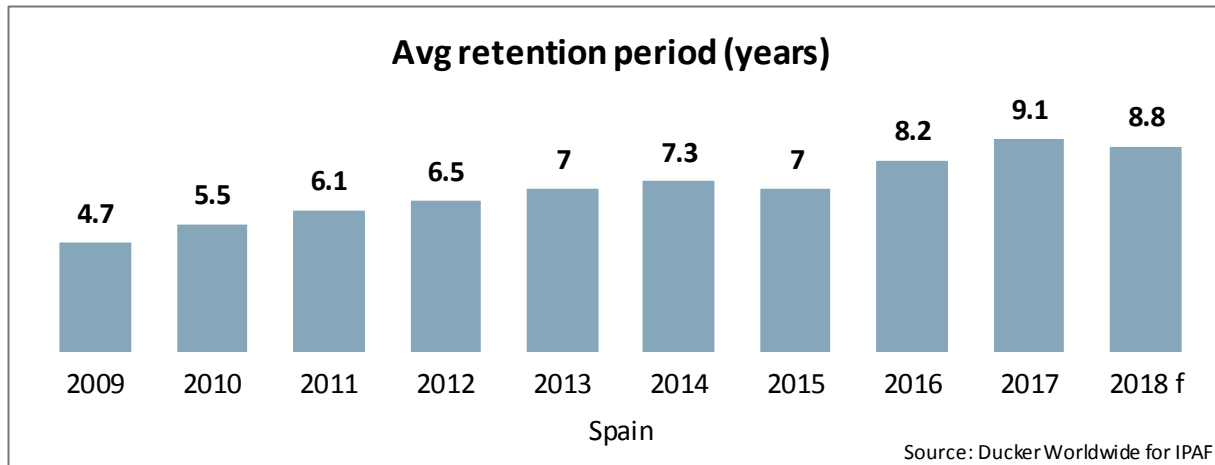
Scissors: 57%

Booms: 62%

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

The average retention period reached a plateau in 2017, to stand at slightly above nine years. It is not expected to much in the coming years.

- Although many MEWP rental companies try to ensure reliability and safety by reducing retention period for MEWPs, some companies in Spain prefer a longer retention period and underpin this with a robust regime of maintenance and safety checks.

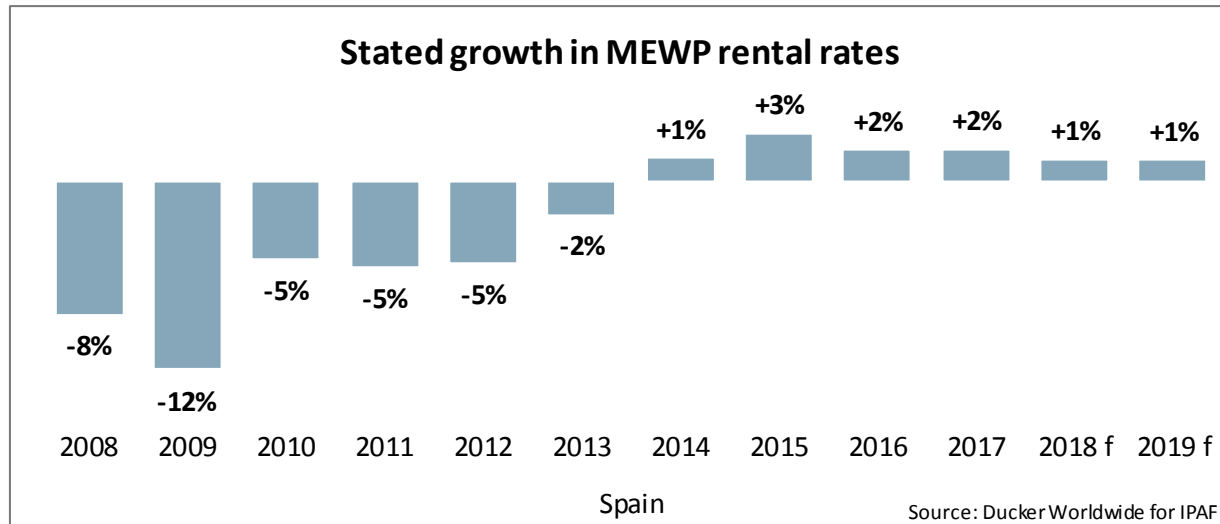


**9.1 = 9 years and 1 month**

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



Although rental rates have increased in 2017 by another 2%, they are said to remain relatively low, which proves challenging for companies’ profitability. More moderate growth is expected over the next few years.



# A PERSPECTIVE FROM THE MANAGING EDITOR OF *INTERNATIONAL RENTAL NEWS*

IPAF Powered Access Rental Market Report 2018 – SPAIN

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- Spain's rental recovery started a few years ago, and though the rental industry remains dramatically smaller than it was at the unbelievable peak of a decade ago, it is now in a much better situation, with growth having returned and rental companies finally investing in their fleets again.
- The European Rental Association (ERA) estimates rental market expansion at 5.4% in 2017 and forecasts growth rates of 4.8% and 4.0% for the 2018 and 2019. These figures make Spain the fastest growing market in Europe in both 2017 and 2018.
- Even so, investment remains at relatively low levels – and certainly lower than other European markets that are actually seeing slower growth. The ERA reckons that investment in 2016 represented 7% of the value of the total fleet, the second lowest investment rate in Europe, with only Polish rental companies spending less. The ERA estimates that total spending on fleets in 2017 was around €175 million – which is less than half of Loxam's total fleet capex in the same year, which puts it into some kind of context.
- Still, the important thing is to be moving in the right direction. Any attendee at ASEAMAC's annual forum in early 2018 would have recognised the optimism that abounds in the market, even though there were some expressing disappointment that growth has not been even higher.

- Speaking at that forum was José Manuel Rubias, Managing Director of Loxam Spain, who said that it was important for mergers and acquisitions to continue as it would strengthen companies. That certainly seemed to be the case last year, with examples including Loxam's deal to acquire Hune and, at a much smaller scale, Kiloutou further expanding its presence in the country with the acquisition of CTC de Maquinaria in north east Spain. There were also some home grown deals, including German Homs' takeover in early 2018 of S3M Iberia SLU in Barcelona.
- And what of Spanish bellwether GAM Alguiler? It grew its sales last year by 11%, with revenues in Spain and Portugal – which represent almost 80% of its revenues – up by 14%. That is a very positive sign, although perhaps less so from the powered access perspective was the news that GAM was investing in drones, a technology that access companies have reason to be ambivalent about.

# APPENDIX

## IPAF Powered Access Rental Market Report 2018 – SPAIN

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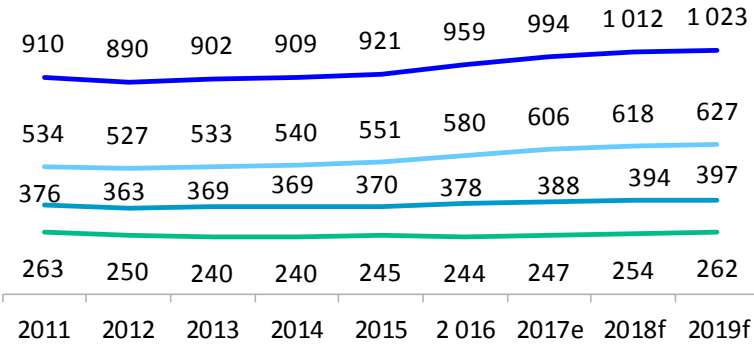


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Macro-economic figures indicate a positive outlook for Spain. The construction sector is expected to remain dynamic over the next few years.

Compound annual Growth Rate (CAGR) 17-19 = 1.46%

Europe – Construction data

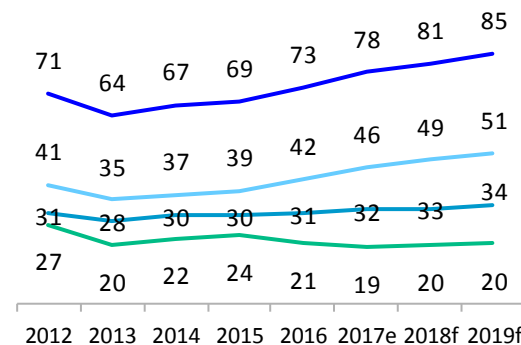


Source: Ducker Worldwide for IPAF

Construction put in place in billion Euros based on Euroconstruct 2017.

Compound Annual Growth Rate (CAGR) 17-19 = 4.01%

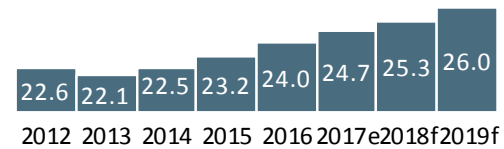
Spain



Source: Ducker Worldwide for IPAF

Compound Annual Growth Rate (CAGR) 17-19 = 2.63%

Spain



SPAIN GDP per Capita in thousand euros – estimates based on Euroconstruct 2017.

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering

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# COUNTRY REPORT – UNITED KINGDOM

IPAF Powered Access Rental Market Report 2018 – Europe

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THE EUROPEAN  
ASSOCIATION  
AWARDS 2018

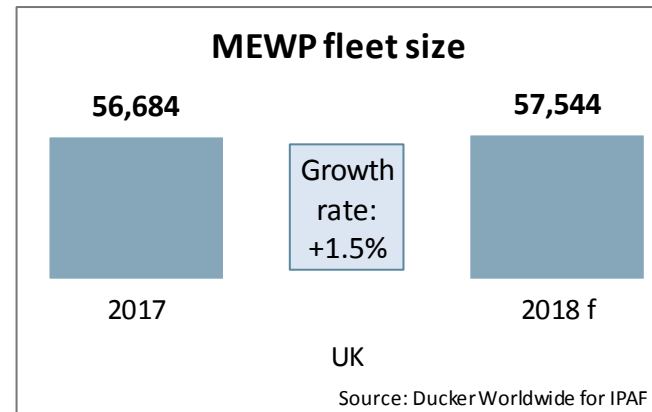
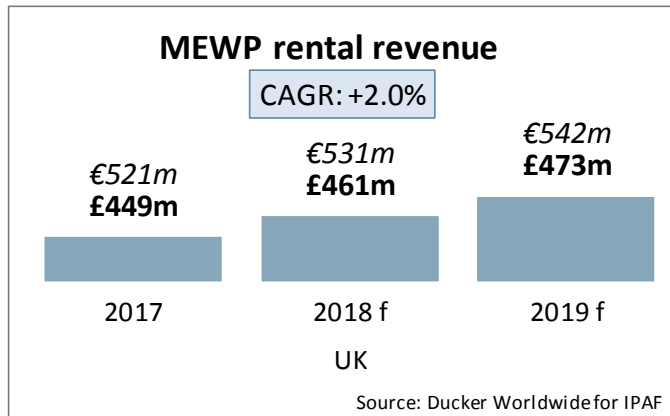
BRONZE  
Best Provision of Industry  
Information and Intelligence



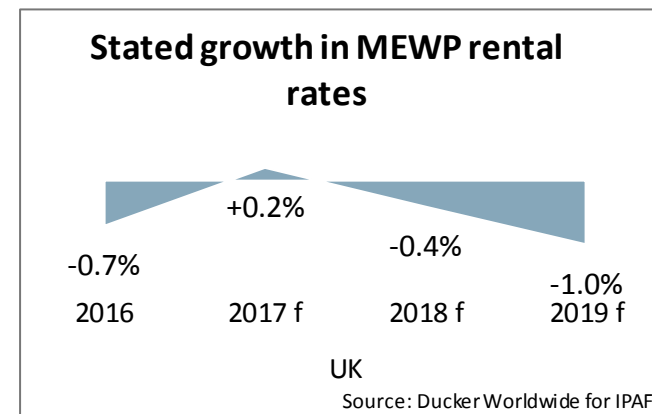
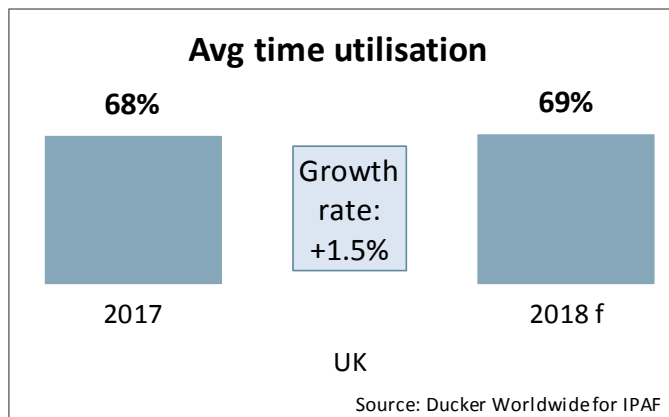
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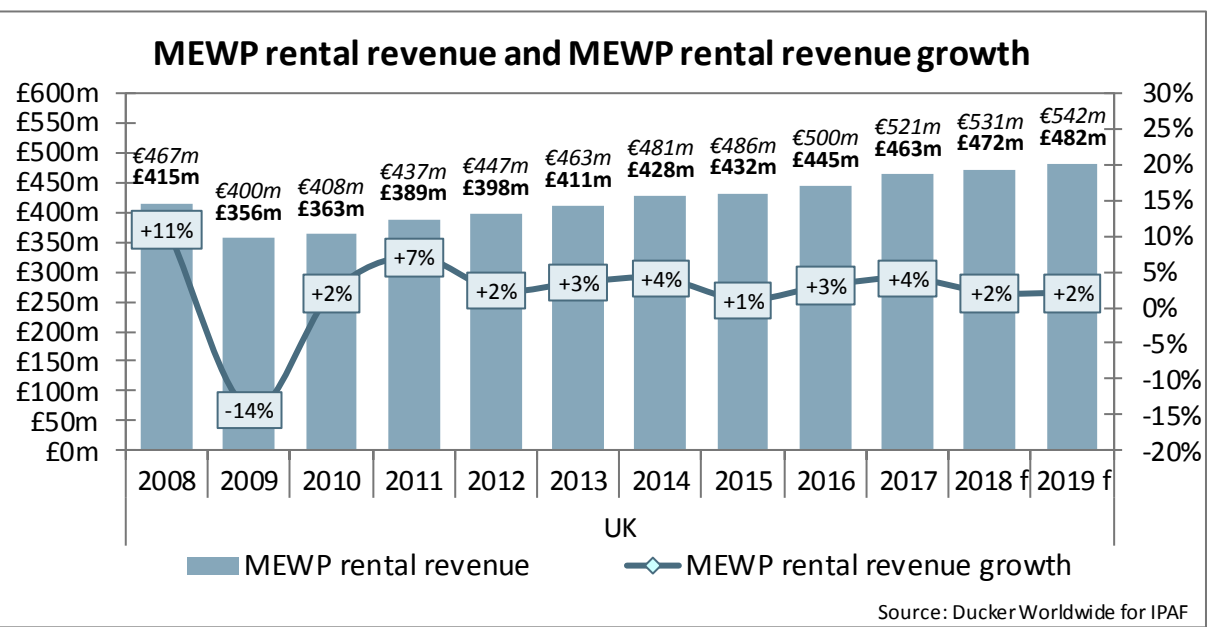
The UK MEWP rental market continues to grow, driven by a number of major construction projects and good demand in sectors outside construction. The outlook for the next few years shows growth continuing, though it may slow to a more moderate rate in 2019 and beyond.



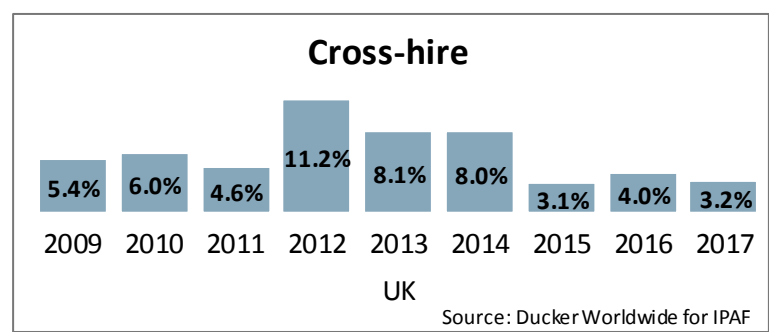
- Almost all indicators increased every year in the UK MEWP rental market, highlighting the solid growth of a mature market.
- Nevertheless, pressure on rates is expected to become stronger in the coming years, as the impact of Brexit becomes clearer.



UK MEWP rental revenue grew significantly in 2017, supported by favorable economic conditions and dynamic construction activity. Forecasts for future years are positive, but growth may slow.



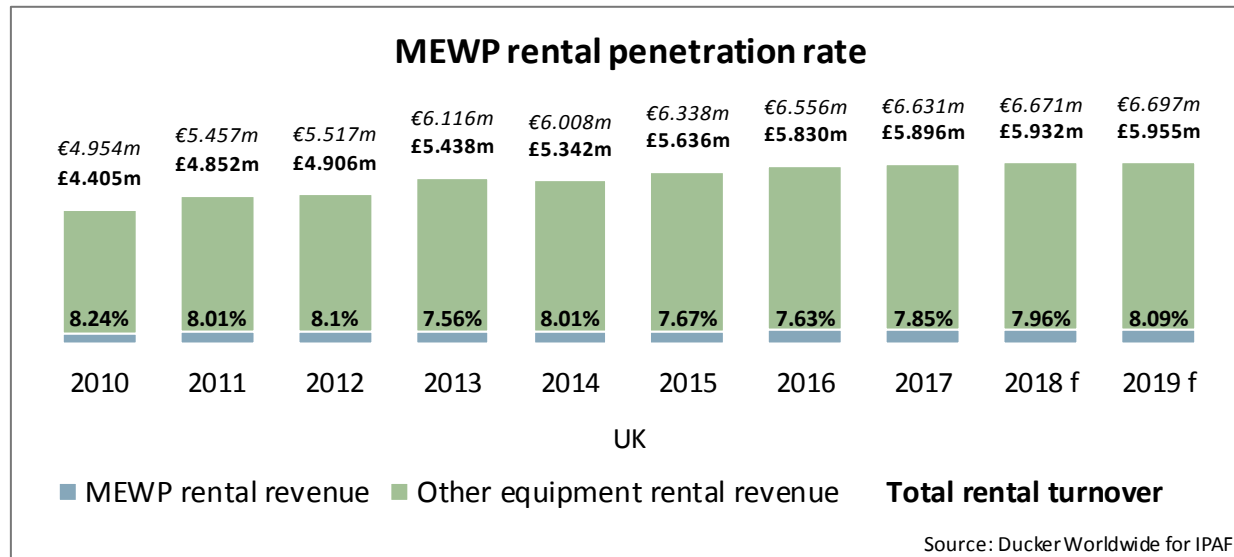
Exchange rate £1 = 1.1246€



- 2017 was another good year for the UK MEWP rental market. The market growth increased by 4% compared to 2016. The UK MEWP rental business looks in good shape and is expected to continue its sustained growth in the coming years.
- UK MEWP rental revenue reached £463 million in 2017.
- The annual growth rate is expected to be at or around the 2% level in the coming years. Until now, Brexit has had limited or no impact on the UK MEWP rental market.
- In 2017, the level of cross-hire was at 3%, a similar level to the previous few years.

UK MEWP rental revenue shows slight growth and is approaching 8% of the total equipment rental revenue (source ERA).

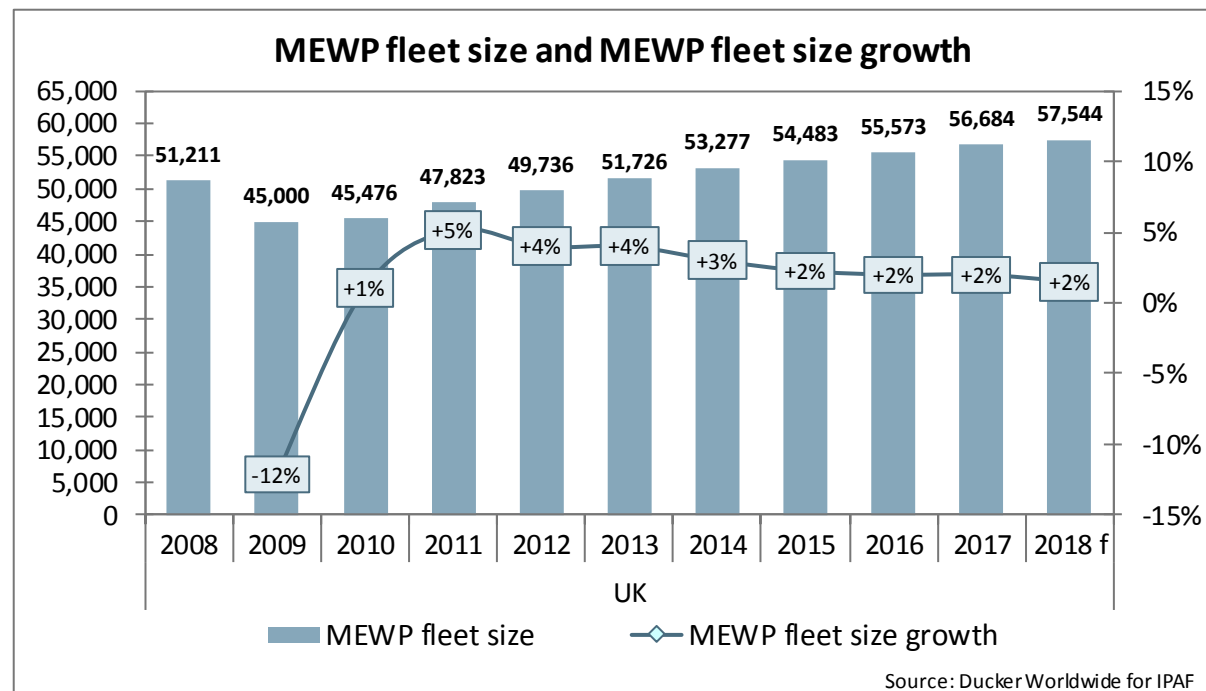
- The increasing penetration of the MEWP rental market indicates it is developing faster than the overall rental market.
- After a few years of slight decrease, it is increasing again and the market is expected to attain and possibly surpass 2014 levels of penetration by 2019.



Source for Total Rental Turnover: ERA 2017 Report.

The UK MEWP rental fleet size increased for the seventh year in a row in 2017. Moderate fleet size growth is expected over the next few years.

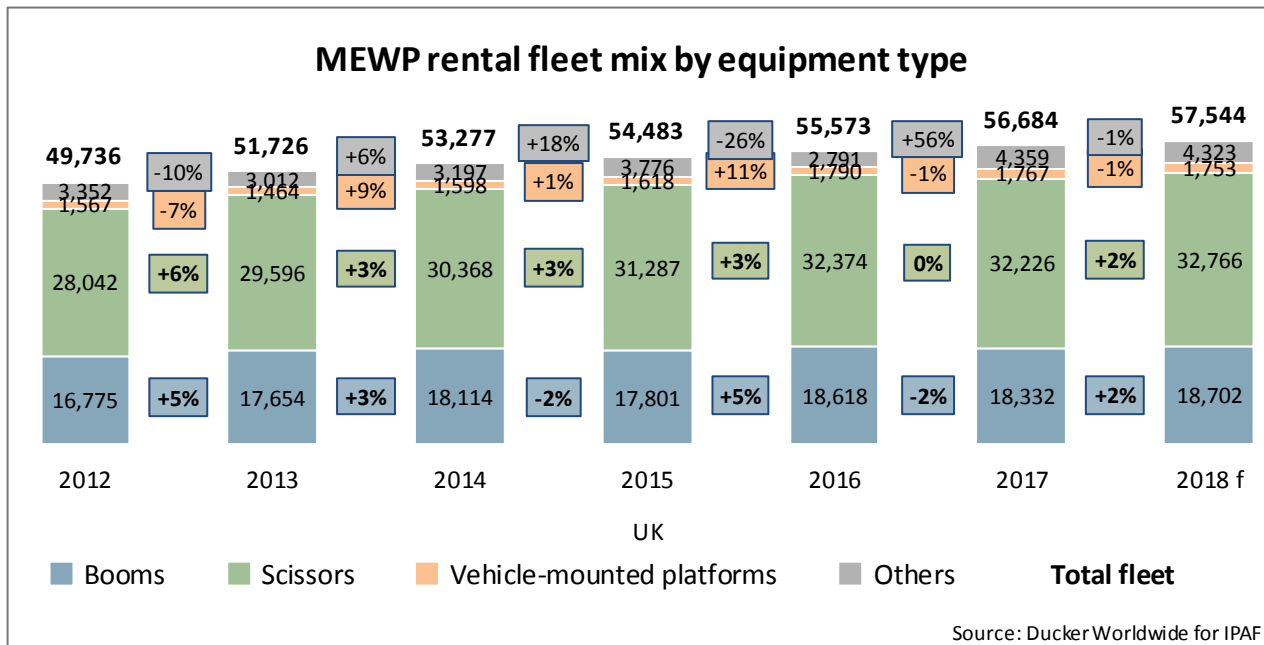
- UK fleet size kept growing at a steady 2% in 2017 and exceeded 55,000 units.
- The UK MEWP rental fleet size is said to be over-capacity despite growing demand, therefore fleet size is expected to grow at a more moderate pace in future.



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

The UK MEWP fleet mix hasn't changed much over recent years. The existing MEWP fleet is expected to be able to absorb future demand, though there is a move towards more small electric-powered scissor lifts, tall booms and vertical masts to service specific major infrastructure projects.

- Several equipment categories are reported to be increasingly requested: Small electric scissors, 28+ m booms range, vertical masts among the retail category, and high height equipment for specific infrastructure projects (Hinckley Point, High Speed 2 etc...).



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

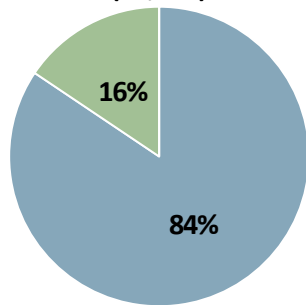
+X%    % unit growth, eg scissors fleet remained at a stable level from 2016 to 2017.  
Others include: vertical lifts, vertical masts, push-around, trailer mounted/towable.

The MEWP boom fleet mix remained very similar to last year. The UK MEWP rental market is traditionally one of the European markets under study where the share of articulated booms is highest.

- Articulated booms are very much appreciated for their versatility and thus account for 83% of total booms fleet.

**MEWP booms fleet mix by type – UK – 2016**

Total booms fleet  
(18,618)

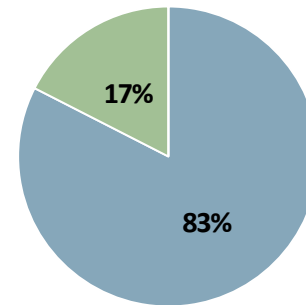


- Articulated booms (15,716)
- Straight booms (2,901)

Source: Ducker Worldwide for IPAF

**MEWP booms fleet mix by type – UK – 2017**

Total booms fleet  
(18,332)

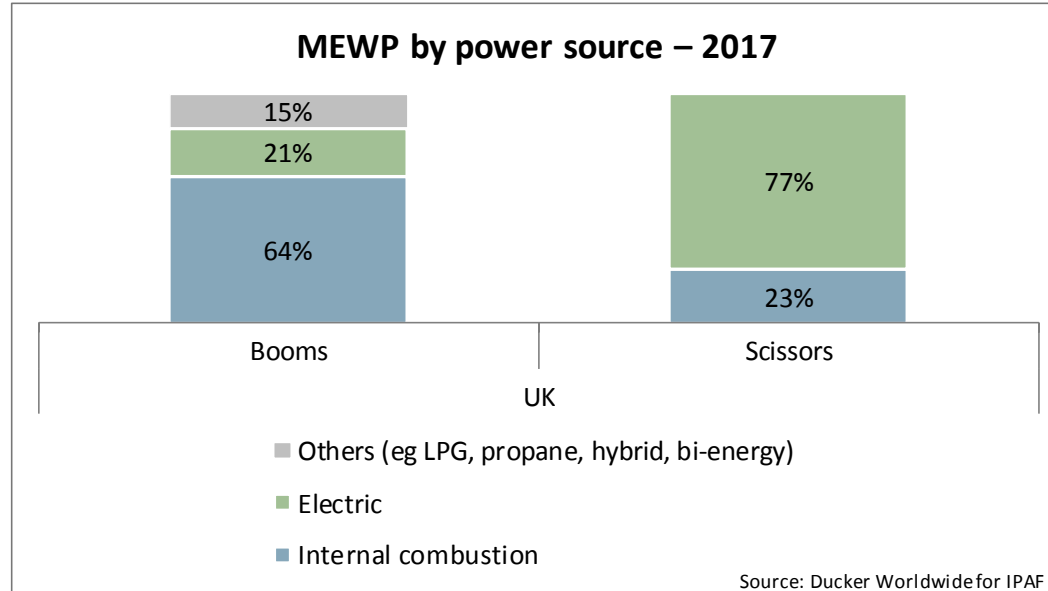


- Articulated booms (15,129)
- Straight booms (3,203)

Source: Ducker Worldwide for IPAF

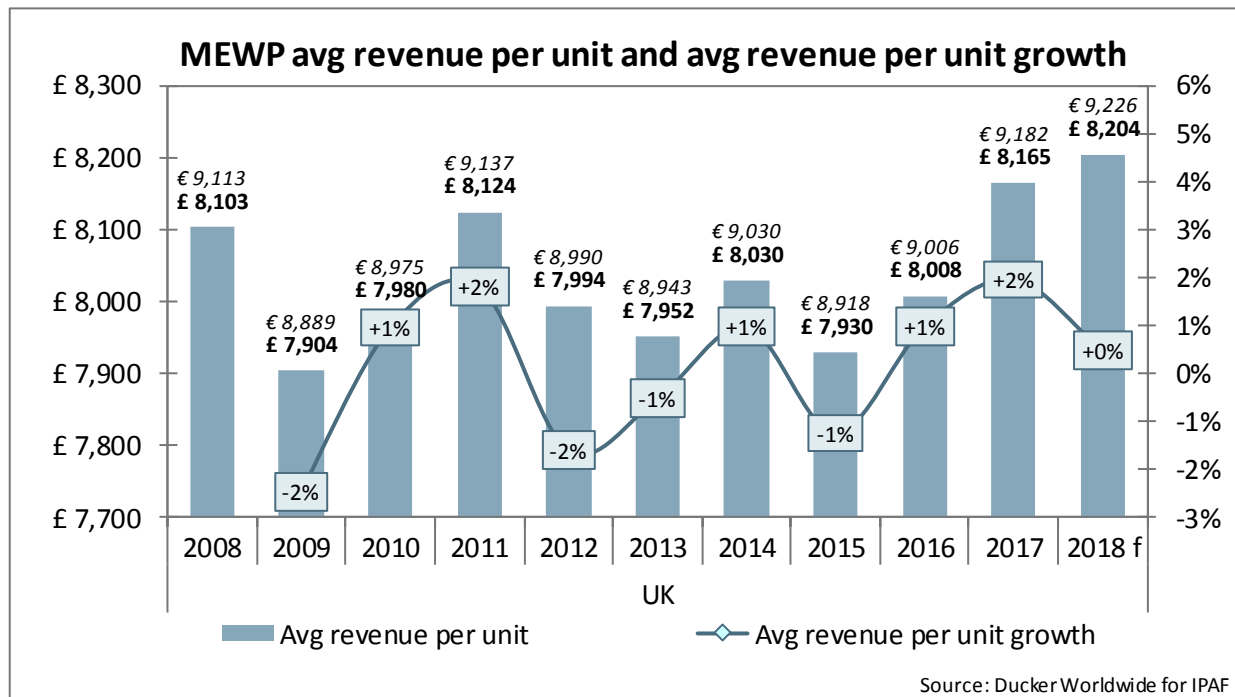
The ongoing trend towards electrical and hybrid equipment identified in the UK, similar to other European countries under study, allows companies to comply with ultra-low emissions regulations being introduced in London and elsewhere.

- The UK scissors fleet is predominantly electric equipment. Hybrid equipment accounts for a negligible share of the overall scissors fleet. Though rental companies are show interest in this technology, they are deemed too expensive currently to encourage significant investment.
- Nevertheless, the UK is one of the European countries under study where the share of hybrid booms is the highest, with around 15% of the overall boom fleet being hybrid. This is likely because the equipment is versatile and can be used in ultra-low emissions zones such as the City of London.



Average revenue per unit grew by 2% in 2017 and reached its highest level over the past ten years, close to £8,200/€9,200 per unit.

- Average revenue per unit is expected to increase very slightly in 2018.



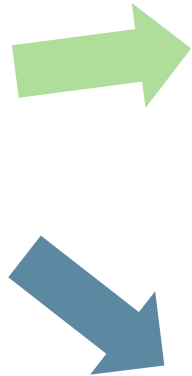
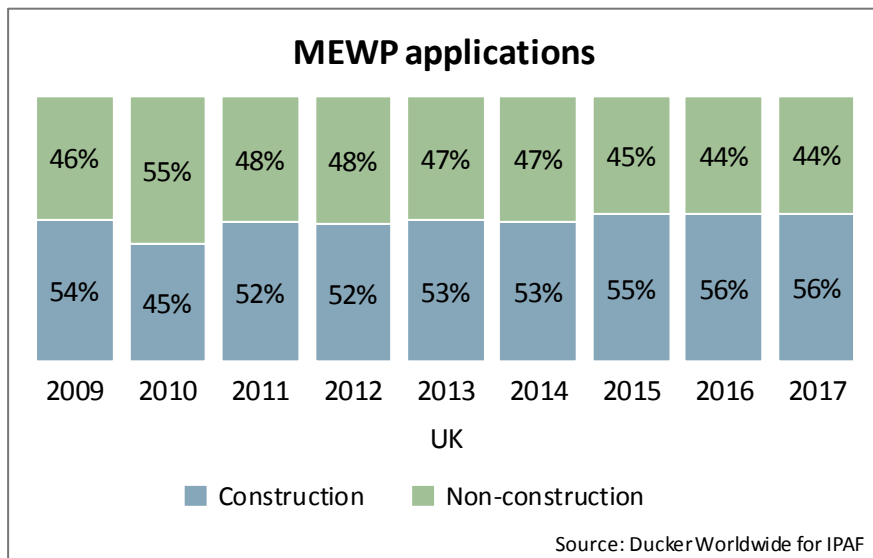
Note: Included are powered access lifts: all booms, scissor lifts and vertical masts  
 Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, mast climbers

Exchange rate £1 = 1.1246€

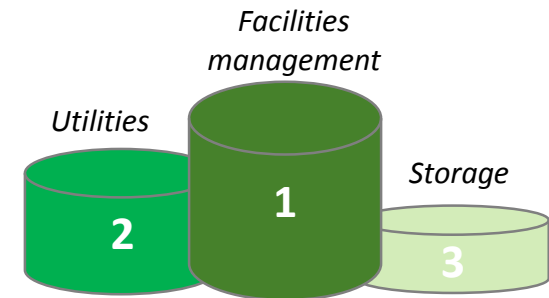


In the UK the construction sector's proportion of end uses remained unchanged at just over one half (56%). Facilities management and utilities remained the predominant non-construction applications.

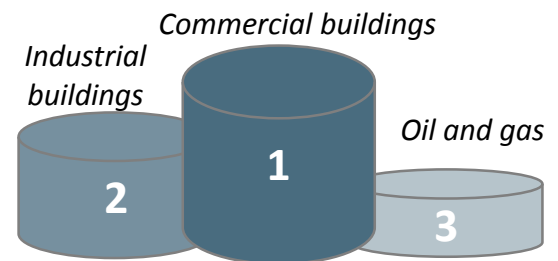
- Both commercial and industrial buildings hold the lion’s share among the construction end-sector.
- The split of non-construction sub-sectors remained stable in 2017: facility management and utilities are the main applications.



### Main non-construction sub-sectors



### Main construction sub-sectors



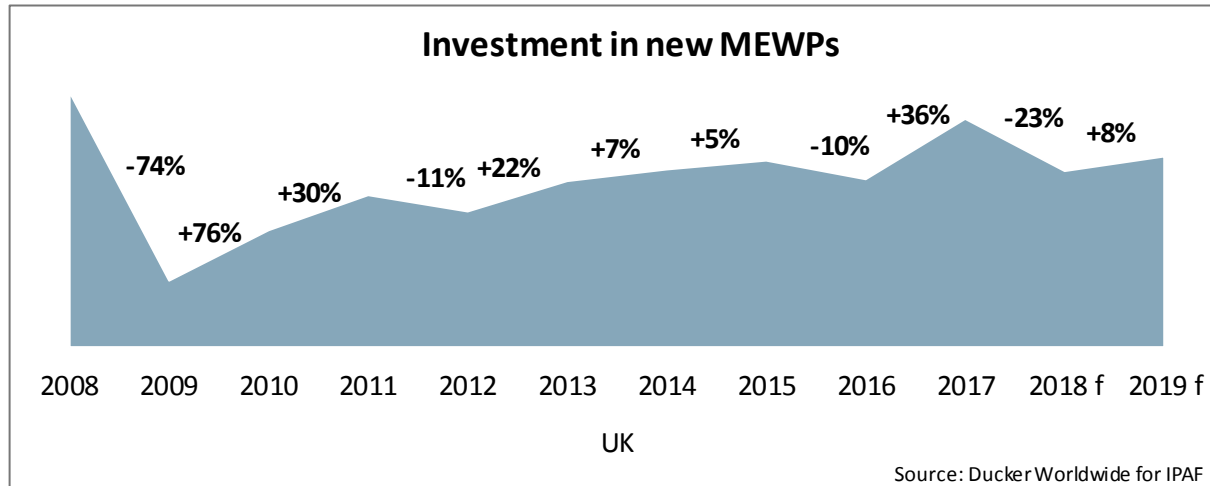
#### Share of rental revenues

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

Construction includes new build and renovation; including all types of buildings, also industrial.

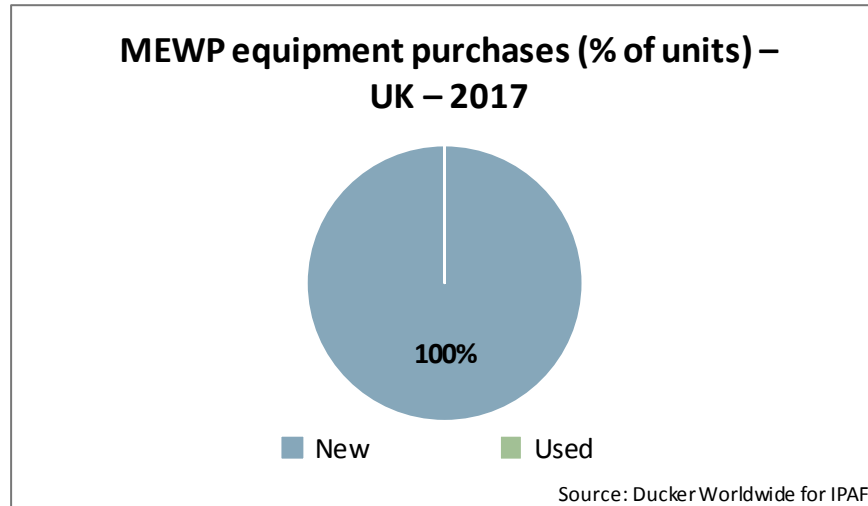
The investment level of UK MEWP rental companies increased in 2017, driven by both fleet renewal and expansion.

- A significant renewal wave occurred in 2017 in addition to fleet expansion, increasing significantly the amount of investment across the year.
- As a result, and despite continuous fleet size growth in the UK, the amount of investment is expected to decrease in 2018.
- A slight rise in total investment in 2019 is forecast to be driven by both fleet expansion and some fleet renewal as well.



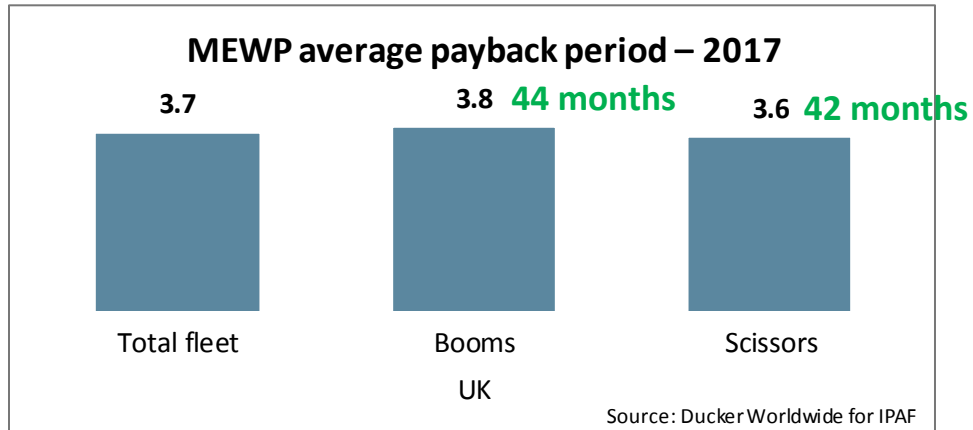
Almost all equipment purchased by MEWP rental companies in the UK is bought new.

- The UK MEWP rental market is a market with a high level of competition and it is important for rental companies to keep relatively new equipment that helps attract more business.
- As a result, only new equipment was purchased by MEWP rental companies.
- The only situation where used equipment can be purchased is if OEMs delivery lead-times increase on a particular type of in-demand equipment.



The average payback period is similar for both booms and scissors in the UK market, at slightly under four years.

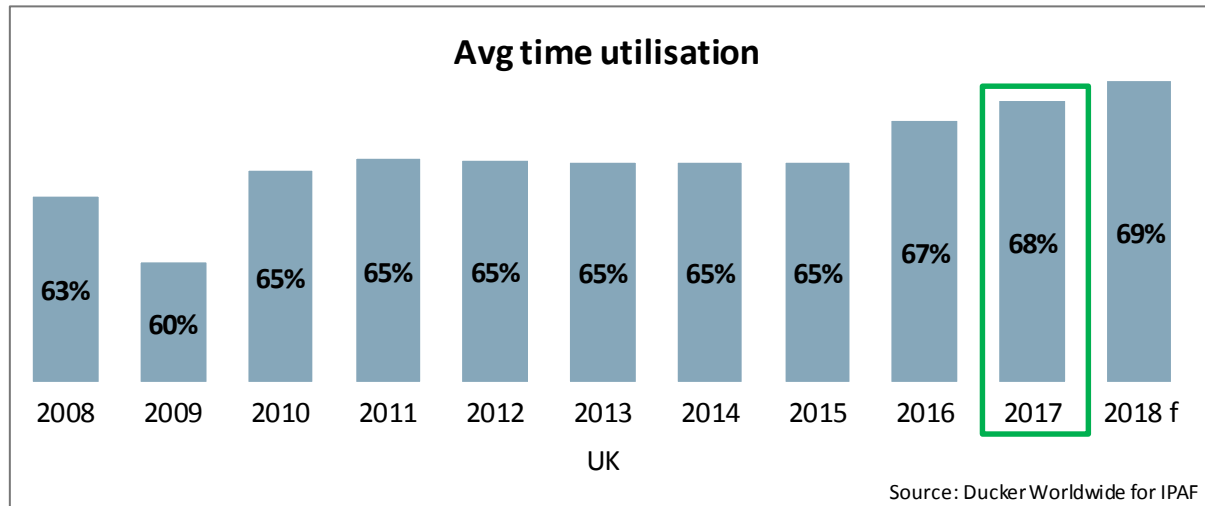
- The average payback period is highly dependent on the power source of machine. A shorter payback period is reported for small electric scissors, sometimes less than two years.
- Large diesel scissors are the machines with the longest payback period, with a typical payback period of five years.



**3.7 = 3 years and 7 months**

The utilisation rate increased for the second year in a row in the UK and is expected to increase again in 2018, due to strong market demand.

- Relatively little fleet expansion occurred, while demand remained strong in the UK market, leading utilisation rates to increase slightly in 2017.
- Utilisation rates are expected to grow again in 2018 to around 70%, above which rental companies can have difficulty completing essential maintenance and efficient equipment turnaround times.

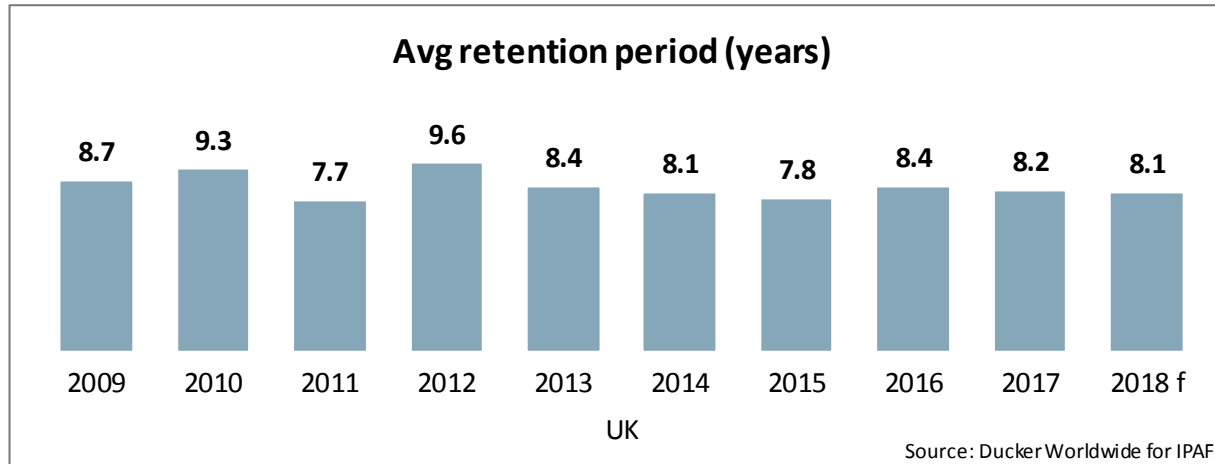


Scissors: 69%  
Booms: 66%

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

The typical retention period of MEWP equipment hasn't changed, remaining at around eight years, as it has been since 2013.

- Booms and diesel equipment are usually kept much longer than scissors and electric equipment: Scissors have a high utilisation rate, and need to be renewed more frequently.

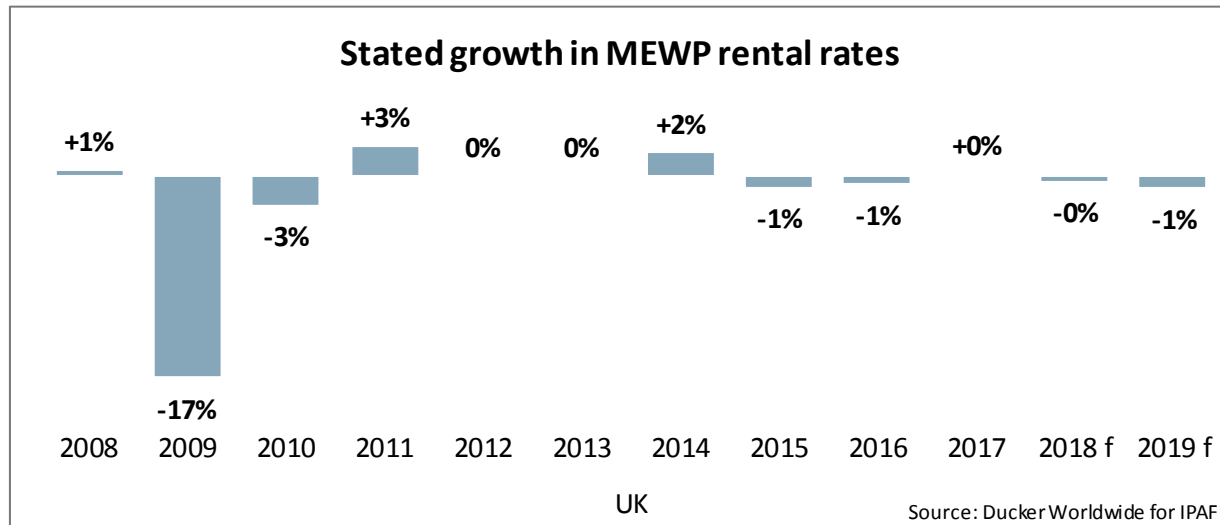


**8.2 = 8 years and 2 months**

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

Though all main market indicators remain positive, rental rates have stagnated over the past few years, which is a symptom of a highly competitive market with a large and versatile rental fleet well able to cope with incrementally increasing demand.

- The strong competition on the UK MEWP rental market is currently putting pressure on rental rates. In the best cases, rental companies maintain them at a stable level.
- Due to the uncertainty of the impact of Brexit on the market, some MEWP rental companies are pessimistic regarding outlook and don't foresee rental rate increases any time before 2020.



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- If there is a worldwide trend towards generalists dominating the powered access rental market then the UK would provide a good case study. In recent years several of the country's biggest general renters have invested in powered access through acquisitions – HSS and Speedy being two examples – and last year also saw, of course, Loxam's acquisition of Europe's largest specialist, Lavendon.
- There are notable hold-outs in this process, with AFI-Uplift now being the largest specialist access business in the UK, a status that was boosted by its acquisition last year of Kimberly. AFI has a fleet of 7,000 units in the UK, which is a lot in any language. AFI is 51% owned by a private equity house, so you would not bet against it joining the generalist crowd at some point in the future.
- The country remains one of Europe's most highly developed access markets, with numerous small and mid-sized players, including companies like Facelift and Smart Platforms. It is this mix of giants and smaller, fast growing businesses that gives the UK its particular character.
- The rental market is performing well enough, even if Brexit continues to make forecasting the future even more difficult than usual. The collapse of Carillion – a contractor with £5.7 billion-worth of construction projects on the go – might have sent a signal that not all was well with the UK construction sector. It was certainly damaging to the many access suppliers who were doing business with Carillion, but probably said more about the contractor's particular business model than the state of the UK construction.

- That said, the outlook for construction remains cloudy, even downbeat, with fears of a reduction in private investment. Not helping matters is the possibility of shortages in skilled labour, in part linked to Brexit.
- That outlook is influencing the European Rental Association's forecasts for the total rental market in the UK (excluding cranes and operated plant). The ERA is forecasting very lukewarm growth of 0.6% in 2018 – and even less in 2019 – which compares to an already modest 1.1% expansion in 2017. These low rates follow the very high growth years of 2014, 2015 and 2016, when the UK's rental market was top of the European league.
- The UK's rental market remains vibrant and full of high-performing companies that are still investing: Witness, for example, A-Plant's continued success and heavy fleet investment in recent years. However, it is probably fair to say that those looking for a guaranteed smooth ride for business over the next few years might look elsewhere.

# APPENDIX

## IPAF Powered Access Rental Market Report 2018 – UK

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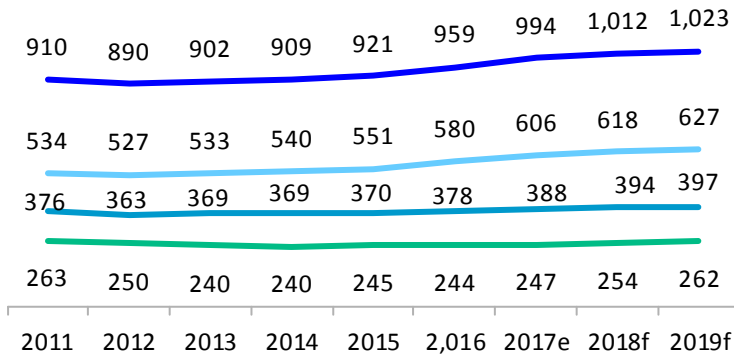
- Exchange rate:
  - The currency exchange rate used for the UK is shown below. The same rate has been used throughout the time period (2017) in order to eliminate variation in growth rates due to exchange rate fluctuations rather than to the actual MEWP rental market.

	<b>Currency Unit</b>	<b>Converter to Euro</b>
UK	£	1.125

Macro-economic indicators such as construction sector activity and GDP per capita are not expected to improve dramatically in the UK over the next two years. The growth of the construction sector is predicted to be less than the European average, though MEWP rental has outstripped construction sector growth for the past few years.

Compound Annual Growth Rate (CAGR) 17-19 = 1.46%

Europe – Construction data

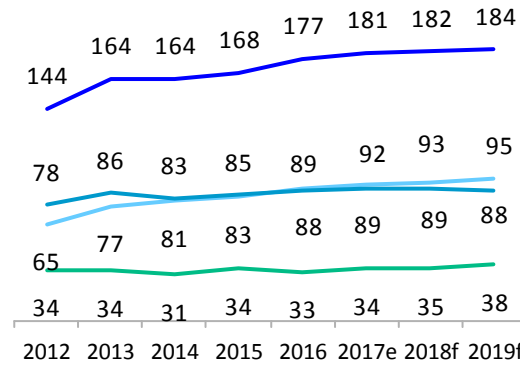


Source: Ducker Worldwide for IPAF

Construction put in place in billion Euros based on Euroconstruct 2017.

Compound Annual Growth Rate (CAGR) 17-19 = 0.67%

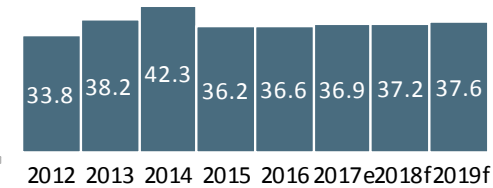
UK



Source: Ducker Worldwide for IPAF

Compound Annual Growth Rate (CAGR) 17-19 = 0.90%

UK



UK GDP per Capita in thousand euros – estimates based on Euroconstruct 2017.

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering

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