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Your 1st Choice in Lifts

VFA Forum, Interlift 2015

Homelifts

an ideal solution for vertical trasportation in low rise buildings

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Demand for accessibility solutions increases

Factors affecting demand

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- Demographic changes
- Economic growth
- Residential construction

Factors affecting demand

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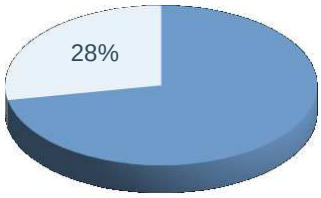
Demographic changes

European population is ageing.

By 2060 the share of 65+ will rise from 18% to 28%.



Population in European countries of 65+ (Million),2060	
Germany	22,8
Italy	19,9
United Kingdom	19,8
France	18,7
Spain	13,8
Poland	10,9
Romania	5,1
Netherlands	4,6
Belgium	3,6
Sweden	3,2
Czech Republic	3,1
Greece	2,9
Portugal	2,8
Austria	2,8
Hungary	2,7
Norway	1,9
Bulgaria	1,7
Finland	1,6
Denmark	1,5
Ireland	1,1
Croatia	1,0

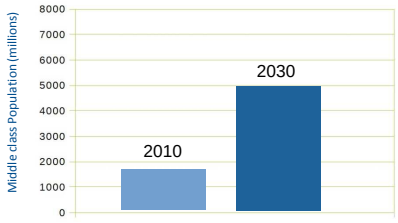
Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2013)

Factors affecting demand

Economic growth

For the first time since the start of the crisis, GDP is expected to grow in every country in the European Union.

By 2030, 5 billion people, nearly 2/3 of global population, could be middle class.



GDP in 2013 prices (EUR Million)

	2015	2020	2025
Germany	2820,9	2980,4	3133,6
France	2104,2	2237,9	2386,8
United Kingdom	1947,9	2064,5	2188,9
Italy	1558,1	1628,2	1726,5
Spain	1018,4	1067,9	1173,8
Netherlands	608,3	641,5	678,0
Poland	415,9	477,2	541,8
Sweden	439,0	482,4	534,9
Belgium	388,1	416,5	446,0
Norway	311.3	350.3	396.3
Austria	322,0	349,9	378,1
Denmark	254,4	279,3	309,8
Finland	194,2	202,0	213,4
Ireland	169,5	181,3	193,9
Portugal	164,5	171,2	187,0
Romania	148,4	165,6	183,4
Czech Republic	153,1	164,4	178,7
Greece	171,6	163,5	167,9
Hungary	100,0	107,4	120,0
Bulgaria	41,6	47,6	52,7
Croatia	43,7	46,5	49,3

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2013)

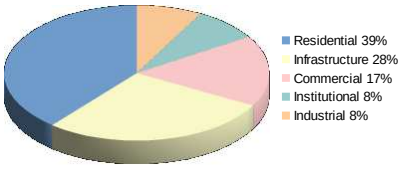
Factors affecting demand

Residential construction

The growth in residential construction is expected to accelerate close to 4% per year over the period 2015-2018.

Single-family housing category is expected to be positive for all EU countries.

Construction industry output value in Europe (2018)



Single-family Construction Output Value (EUR Million)

	2010	2014	2018
Germany	58,829.5	72,581.7	88,290.3
Italy	59,906.4	57,127.5	59,734.6
France	59,292.3	55,311.3	57,460.1
Spain	43,144.0	31,559.7	35,783.2
UK	22,871.0	27,728.3	32,354.4
Norway	11,096.9	15,680.3	19,539.1
Netherlands	18,953.6	17,575.6	19,042.4
Belgium	15,537.3	15,716.8	16,724.7
Poland	8,998.4	9,410.6	11,198.0
Finland	7,919.5	8,384.2	8,867.6
Romania	8,470.1	8,012.9	8,514.5
Denmark	5,990.7	7,235.8	7,942.0
Sweden	8,050.2	6,230.3	7,512.2
Austria	4,229.1	4,833.1	5,473.1
Ireland	2,943.5	2,494.9	2,530.3
Greece	3,099.0	1,616.2	1,627.6
Portugal	1,534.0	1,136.1	1,212.9
Czech Republic	979.9	796.2	885.3
Croatia	580.5	534.7	613.1
Bulgaria	743.2	415.9	456.0
Hungary	109.3	113.3	130.6

Source: Timetric

European markets

Focus

United Kingdom

Germany

France

Italy

Spain

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Homelifts an ideal solution

Definition of homelifts

- Designed according to the **Machinery Directive 2006/42/EC** for the needs of **private residences**
- Only used by **single family** (non-public)
- Meet the following five features:
  1. Between fixed landing floor, carrier operates vertically along the guide rails
  2. Available usage by persons with or without wheelchair
  3. Support by or hang with rope, chain, rack and pinion, hydro-cylinder (directly or indirectly), screw and nut, traction sheave
  4. Have own shaft
  5. Have normally a not fully enclosed carrier

Typical features of homelifts

Technical features

- **Rated Load** 385Kg
- **Max Travel** 7m
- **Max Number of Stops** 3
- **Min Pit Depth** 120mm
- **Min Headroom** 2300mm
- **Max Speed** 0,15m/s
- **Power Supply** Single-phase 50/60Hz
- **Motor Supply** 1,5Kw
- **Landing Doors Type** Swing

Typical features of homelifts

Safety features

- Safety gear
- Sensitive device at carrier entrance
- Electrical anti-creep system
- EMC requirements compliance
- Emergency lighting
- Earthing of electrical components
- Hold to run operation
- Limited stopping/levelling accuracy
- Overload device
- Guards on pulleys
- Mechanical blocking device to protect working areas

Homelifts according to Lift Directive

- **Upgraded** products for those with higher demands
- Equipped with **fully enlcosed car**
- Hold to run control is not necessary
- Typical speed is **0,4 m/s**

A major issue for Lift Directive's homelifts is that in several European member states low pit and headroom installations are not allowed.

European regulations for homelifts

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Rated speed ≤ 0,15 m/s

- Compliance with **Machinery Directive 2006/42/EC**
- Applicable standard harmonised to Machinery Directive

EN 81-41:2010 'Vertically lifting platforms intended for use by persons with impaired mobility'

European regulations for homelifts

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Rated speed > 0,15 m/s

- Compliance with **Lift Directive 95/16/EC**
- Applicable standard harmonised to Lift Directive

EN 81-1:1998+A3:2009 'Safety rules for the construction and installation of lifts — Part 1: Electric lifts'

EN 81- 2:1998+A3:2009 'Safety rules for the construction and installation of lifts — Part 2: Hydraulic lifts'

EN 81-20/50:2014 fully implemented by August 2017

European regulations for homelifts

What's new

- A new standard **EN 81-42** is under development to cover 'slow lifts' under the Machinery Directive.

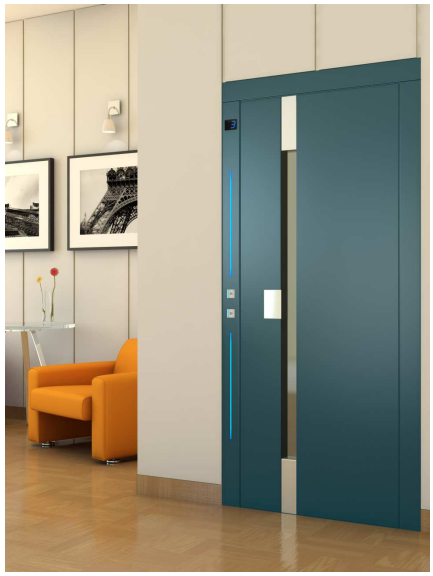
aim of the standard

distinction of requirements between lifts with low and higher speed

Advantages of homelifts

Design & Space

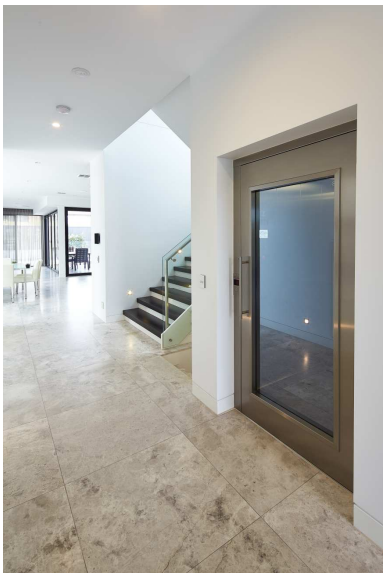
- ✓ Optimum use of space
- ✓ Low pit and headroom requirements
- ✓ No need for extra space for machine-room
- ✓ No need for concrete shaft



Advantages of homelifts

Economy & Efficiency

- ✓ Excellent reliability and safety
- ✓ Minimum power consumption
- ✓ Low installation and maintenance costs
- ✓ Significant less paperwork
- ✓ Offered at a lower price than conventional lifts



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