

The AEG-Electrolux Noise Report

Endorsing statement by the UK Noise Association.

The UK Noise Association welcomes this Noise Report from Electrolux. It is one of the most comprehensive surveys of attitudes towards noise ever undertaken in Europe. The breadth of the research is impressive: people were interviewed in ten countries including, fascinatingly, Russia.

Although there are interesting differences between the countries, the message which comes across loud and clear is that noise is a major problem for millions of people across Europe.

This report should be required reading for both politicians and manufacturers. It highlights the impact that noise, which has long been neglected by most politicians, can have on the daily lives of people. It shows manufacturers that there is a real market for quieter products.

John Stewart
Chair,
UK Noise Association

Introduction

The environment is rightly reaching the top of the global political agenda. With attention focussed on air pollution and global warming, the impact of noise pollution on everyday lives is often neglected. Noise may be a more transitory form of pollution, and for many it may be just one of the many minor daily irritants of modern life, but for a significant minority it has serious consequences; on relationships, on the quality of life, on sleep patterns, and even health.

In this report we aim to highlight some of these issues and how they affect ordinary Europeans– the silent majority in a noisy world. To inform this report with facts, rather than just subjective comment, we commissioned one of the largest surveys of its kind ever conducted in Europe, gathering the views of 2,000 people of all ages and social groups across ten countries.

We hope it helps governments to think through policy, regulations and enforcement; we hope that through the media it helps neighbours to be more considerate of each other; and we hope that it stimulates industry into thinking of more innovative ways to make it a more peaceful world to live in.

What I took away from the research is the patience of people, many suffering from persistent low level noise pollution, that put up with these problems with fortitude – although nearly 10m people a year are forced to move home because of noisy neighbours each year. It doesn't have to be like this, and we hope in our own small way that our latest range of quieter domestic appliances will facilitate a quieter home life across Europe.



Hans Stråberg
President and Chief Executive Officer
AB Electrolux

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The research

This report is based on the results of 2,000 interviews conducted with a panel of on-line respondents across 10 countries in Europe. The research took place during 2007.

200 interviews were conducted in each of ten countries:

Austria	Netherlands
Belgium	Norway
France	Spain
Germany	Russia
Italy	UK

Collectively, the population of these countries (excluding Russia), account for 85% of the population of Western Europe.

The panel of respondents in each country was selected to be broadly representative of the total population, although we chose to select a higher proportion of women to men, reflecting their dominance in selection of domestic appliances. There are some inherent biases in using on-line research, although these are now becoming less significant with sampling aimed to minimise this bias. The results for 'all Europe' are the average for the ten countries surveyed. They were not weighted according to population, where Russia would dominate. Thus the overall results are not intended to be representative of all Europe. Where there are significant and interesting differences in the results between countries these are noted in the text. The research was conducted anonymously, with respondents unaware that the research was being conducted on behalf of AEG-Electrolux. The research was managed by Market Intelligence Management Limited, and the panel was administered by Ciao, one of the world leaders in online research. The analysis and report was written by Jon Francis, formerly Managing Director of MORI Market Dynamics and a Director of the Henley Centre for Forecasting.

Statistical accuracy

When looking at the data, it should be recognised that, as with all surveys, there is a degree of statistical uncertainty inherent in the results.

For example;

i) If 10% of a representative sample of 2,000 respondents gave a particular response, we would have a 95% confidence level that the actual percentage is between 8.5% and 11.5% (i.e. +/- 1.5%).

ii) If 10% of the Norwegian sample in this survey (200 respondents) gave a particular response, we have a 95% confidence level that the actual percentage is between 6% and 14% (i.e. +/- 4%).

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Summary

Noise pollution in Europe: an everyday fact

Noise is a big issue in Europe. Half of us live in noisy surroundings and a third of us have disturbed sleep patterns because of noise (Source: The World Health Organisation). Evidence suggests it is getting worse; complaints to Environmental Health Officers in the UK about domestic noise have risen 400% in the last two decades.

Thus the stress associated with noise pollution in the home is a serious issue for many across Europe; 40% of people in France, 34% in Germany, and 33% in Spain say noise from neighbours or the street is a serious irritant. Domestic noise pollution appears to be worse for those living in poorer, higher density housing.

The most invasive and disturbing noise pollution experienced in the home is that generated by neighbours, but at the same time the research suggests that people are less sensitive to the impact their own noise is having on those living around them. Overall, 1 in 6 of the Europeans surveyed said their quality of life at home was affected by noise not of their own making, with 3% saying that they suffered a great deal.

Living with noisy neighbours

While the most disturbing sounds that neighbours make are arguments, children and loud music, 1 in 6 are also affected by the noise generated by neighbours' domestic appliances.

Neighbourhood harmony varies considerably across Europe; among the Russians surveyed, nearly 6 in 10 were bothered by quarrelsome neighbours, compared to less than 2 in 10 in Norway.

Noise is not a trivial issue for those it affects; over a third of Europeans in our survey have been woken up by their neighbours at some point in the last 12 months and a similar number have found themselves unable to get to sleep. This type of disturbance inevitably leads to conflict, and nearly half of the people surveyed at

some time had to complain either to their neighbours directly or to someone in authority. While many of these conflicts are resolved, or at least an uneasy truce is reached, the research suggests nearly 10m people a year in the countries surveyed are forced into moving home each year because of noisy neighbours.

Noise of our own making

We are less bothered generally about noise generated within our own homes, but 2 in 10 respondents had experienced a family quarrel over noise (usually loud music or TV).

1 in 10 of the Europeans in our survey says that noisy domestic appliances have been a problem in their home during the previous 12 months. People find the noise of vacuum cleaners and washing machines the most irritating, but noisy cooker hoods and tumble dryers are also irritants among those who own them. People find the noise generated by domestic appliance more of a problem at certain times of day, and on certain occasions, for example early in the morning, when people are working at home, or when people are entertaining.

Overall, around 1 in 10 respondents said noise pollution of their own making affects their quality of life, but this rises to a quarter of people in Italy and around 2 in 10 in France.

The kitchen; the noise hub of the home

The kitchen is the central hub of the home, where as well as cooking and eating, many use it as their leisure centre, with over half of respondents listening to music in the kitchen and 4 in 10 watching TV there once a week or more. 44% of those surveyed now also work in their kitchen at least once a week. For a significant minority the kitchen is also the bedroom, with 17% of respondents sleeping in their kitchen at least once a week, and 13% making love in the kitchen with the same frequency.

The kitchen is also the main location for domestic appliances such as cooker hoods, dishwashers, microwaves and fridges / freezers, but the location of other items varies across Europe, most noticeably for washing machines with 73% of people in the UK keeping their washing machine in the kitchen, compared to just 3% in Norway, while 67% of Russians keep this item in the bathroom.

Nevertheless, with respect to 'machine made' noise, the kitchen is the noisiest room in the house for over half of those surveyed. This noise changes the way people use their kitchen. A third of those with cooker hoods and washing machines choose not to use them on occasions when their noise makes other activities difficult and a fifth of those with dishwashers do not use it some or all of the time for the same reason. This led 4 in 10 respondents to agree that they would like a quieter kitchen, although this varied widely from 18% in the Netherlands to 64% in Spain.

Dealing with noise in the kitchen

4 in 10 respondents believe that the noise of equipment in the home is one of the curses of modern life. Others are less resigned and more actively address the problem, with 16% saying they have moved a domestic appliance because it was too noisy, while 14% have gone further and thrown it away. In the hypothetical situation of having an unacceptably noisy piece of equipment in the kitchen, the most common responses were to put off the day when it would have to be replaced or just grin and bear it. Only 1 in 5 said they would replace it immediately, highlighting the financial barrier to replacing domestic appliances.

For the vast majority of respondents, the noise a particular appliance makes was only a minor consideration (if at all) when it was purchased. Only around 1 in 4 of those buying one of the main domestic appliances had taken serious account of the noise it made at the time of purchase. In retrospect many see this as a mistake; 42% of those buying vacuum cleaners, 29% of those buying washing machines, 28% of those buying dishwashers, 33% of those buying cooker hoods, 27% of those buying tumble dry-

ers and 18% of those buying refrigerators wished they had taken noise into account to a greater degree when they bought it.

This retrospective heightening of the importance of noise in the purchase decision led many to believe they would choose quieter appliances in the future, even if they cost more. On being given the choice of a standard appliance or one that made half the noise at a 10% price premium, around half would go for the quieter more expensive option, whether it was for vacuum cleaners, washing machines or dishwashers. This also reflects the higher quality and reliability people associate with quieter domestic appliances.

Chapter 1

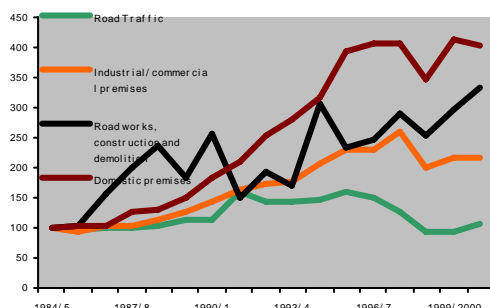
Noise Pollution in Europe: an everyday fact

Noise, or rather sound, can be pleasant, but for centuries industrialisation has led to ever increasing problem noise levels, particularly in large conurbations. Noise pollution takes many forms; aeroplanes, traffic, noise at work, as well as noise experienced in the home. The World Health Organisation (WHO) has long recognised it as a serious issue; causing cardiovascular effects, reducing work performance, altering social behaviour, reducing children's ability to learn, and affecting sleep patterns. Worldwide, an estimated 120 million people have hearing problems caused by over and/or prolonged exposure to noise, normally in an occupational context.

WHO estimate that 113 million people in Europe are exposed to noise levels high enough to have serious health consequences. However, the issue is not limited to these most serious cases: WHO also state that half of the citizens of Europe live in noisy surroundings and a third experience levels of noise at night that disturbs sleep.

While it is difficult to measure change in levels of noise over time, there are indications that it is deteriorating, or at least people are becoming less willing to tolerate it. In the United Kingdom there was over a 400% increase in the level of complaints regarding domestic noise pollution between 1984/5 and 2001/2 (Source: The Chartered Institute of Environmental Health).

Figure 1.1 Noise complaints received by Environmental Health Officers (UK)

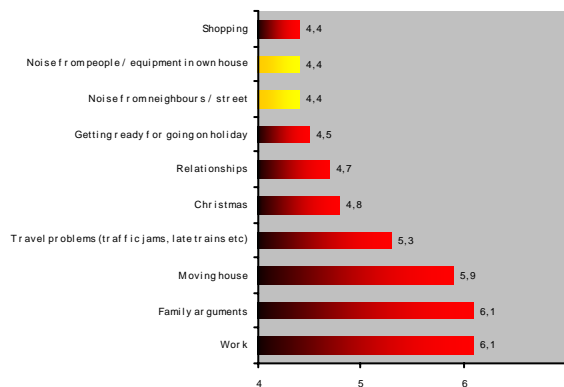


Source: The Chartered Institute of Environmental Health

Measures to address this issue have been taken up at many levels, from the United Nations, to the OECD, to the EC (via their 1996 Green Paper and subsequent initiatives), through to national governments. It does however remain a problem across the world, and particularly in highly industrialised areas such as Europe, where WHO state that noise legislation is not consistently enforced.

However, noise pollution needs to be put in context. The focus of this report is noise experienced in the home, and as can be seen in Figure 1.2, noise caused by neighbours or generated within the home is relatively un-stressful, compared to work, relationships and upheavals such as moving house. Never the less, for a significant minority it is a constant and significant issue; 40% of people in France, 34% in Germany, and 33% in Spain say noise from neighbours or the street is a serious irritant.

Figure 1.2 Noise pollution in context Stress associated with different aspects of life



Source: The AEG-Electrolux Noise Report
Base: All (200)

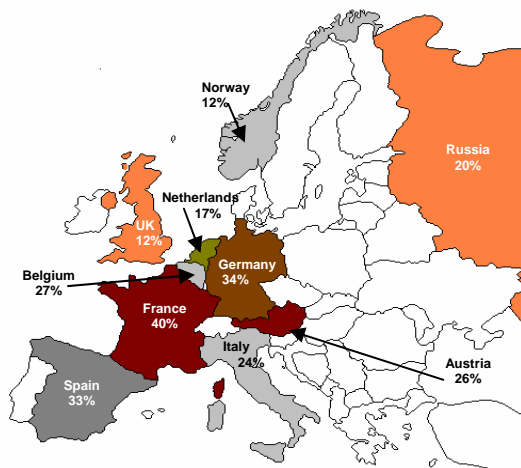
As we will show throughout this report, the issue of noise pollution is affected by where people live, the type of house they live in, and the living conditions they face.

The sources of this pollution in the home are many-fold, from neighbours, to commercial premises, to traffic and aeroplanes. When people were asked which noises they could hear in the home, and for how much of the time, the dominant sources were neighbours (both inside and out of

their home), traffic, and significantly (as it is more controllable) noises coming from domestic appliances within their own home. The likelihood of being bothered by noise from neighbours is correlated with where people live, and indirectly their social conditions. Thus people living in flats, or rented properties, in particular those in large conurbations, are most likely to suffer with problem noise from neighbours – in turn this is correlated with the economic status of that individual.

Figure 1.3 The stress of neighbours' noise

Percentage scoring 7-10 for stress caused by noise from neighbours / street



Source: The AEG-Electrolux Noise Report
Base: All (200 in each country)

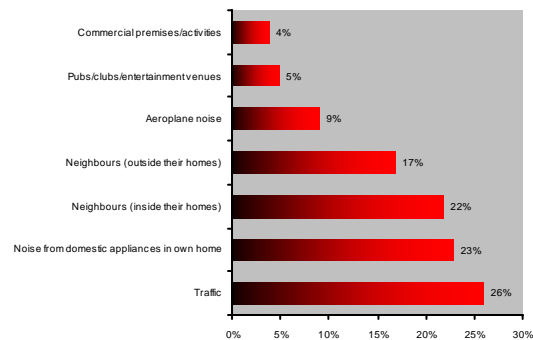
Hearing noise is one thing, but not all noises are necessarily irritating. When those who could hear each noise source in their home were asked how irritating they found them, a fairly constant 10-15% said they were extremely or very irritating, whatever the source of the noise. This highlights a key issue; while a particular source of noise (for example pubs, clubs and entertainment venues) may be out of earshot for the vast majority of people, when they are audible they are as irritating to those affected as any other source of noise.

A paradox also emerged from this question; noise made by neighbours was the most irritating of all sources of noise pollu-

tion, but noises made within the home the least irritating. People thus may simultaneously believe they are being good neighbours, while unwittingly driving their neighbours mad with the noise they are making; nearly half of people in the survey believe they make less noise than their neighbours, whereas only 10% believe they make more noise than their neighbours – it doesn't add up.

Figure 1.4 What can be heard in the home

Percentage saying hear each noise 'quite often' or 'much, or all of the time'



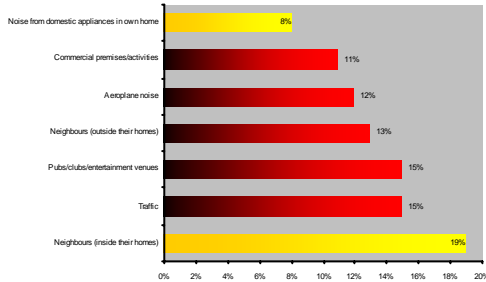
Source: The AEG-Electrolux Noise Report
Base: All (2,000)

The data show that Belgians, French, Germans and Italians who can hear noise from inside their neighbours' homes find it the most irritating, while Norwegians and the British find it the least irritating. The research does not show if this reflects the design, quality and location of building stock, or whether it is more dependent on cultural outlook.

Overall, however, 1 in 6 Europeans in our survey said their quality of life at home was affected to some significant degree by noise not of their own making, with 3% saying that they suffered a great deal. Only a third said it had no impact on their quality of life.

Figure 1.5 Irritation levels associated with different noise sources

Percentage who hear each saying it is 'extremely' or 'very' irritating

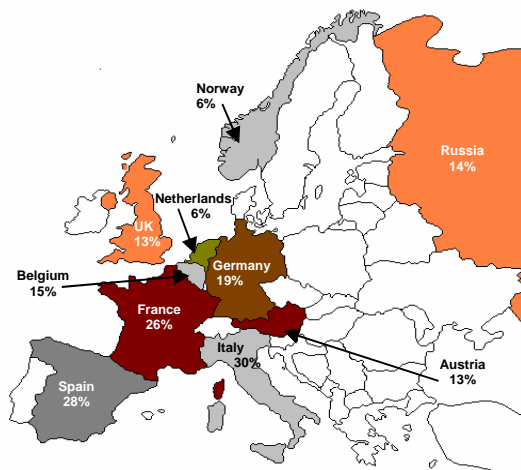


Source: The AEG-Electrolux Noise Report
Base: Those who can hear each noise in their home

This picture differed significantly across Europe. Over a quarter of people in France, Italy and Spain said their quality of life at home was seriously affected by noise, while those in the Netherlands and Norway said it had the least effect.

Figure 1.6 Impact of noise on quality of life in the home.

Percentage saying quality of life at home suffers 'a great deal' or a 'fair amount' from noise not of their making



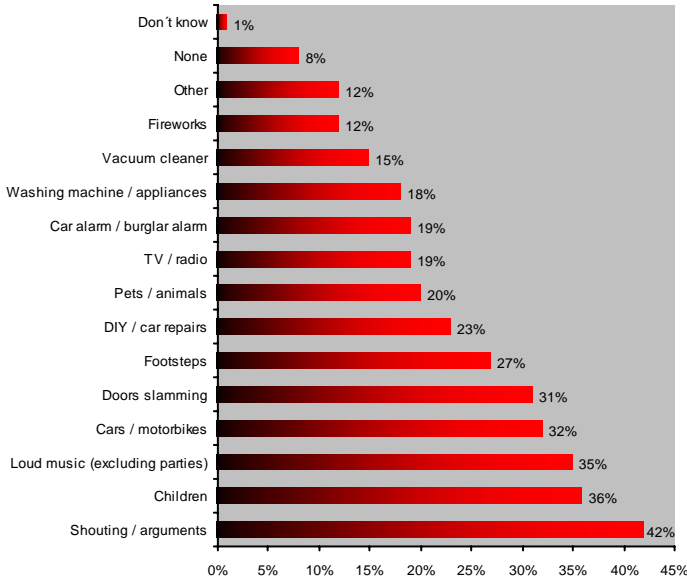
Source: The AEG-Electrolux Noise Report
Base: All (200 in each country)

Chapter 2

Living with noisy neighbours

The noise that causes the most problem for people in their homes across Europe, in terms of the number of people experiencing a problem and the level of irritation it causes, is disturbance caused by neighbours.

Figure 2.1 Sources of neighbourly noise pollution



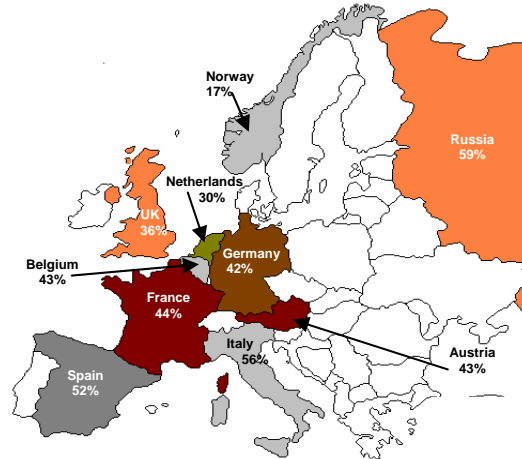
Source: The AEG-Electrolux Noise Report
Base: All (2,000)

When probed which noises caused by their neighbours bothered them the most, the major issue was shouting and arguments, which is penetrating as well as potentially emotionally disturbing. The next most irritating noise is the sound of children playing, closely followed by (and possibly related to) the sound of loud music. The sound of next door's domestic appliances, or the sound of neighbours using the vacuum cleaner, affects around 1 in 6 people in the survey.

The extent, or at least the impact, of warring neighbours varies considerably around Europe. In Russia, 59% of people are bothered by arguments among neighbours and they also head Europe for being bothered by loud music (at 52%). 56% of Italians are bothered by arguments, compared to the most peaceful (or most tolerant) nation in Europe, Norway, where just 17% are bothered by noise from their neighbours.

Figure 2.2 Warring neighbours around Europe

Percentage of people disturbed by the noise of neighbours arguing



Source: The AEG-Electrolux Noise Report
Base: All (200 in each country)

Looking at the factors characterising those most bothered by all aspects of neighbours' noise, the major influences are location, type of dwelling, and the quality of housing stock. Young people are most bothered by noise, highlighting the relatively poverty of the young compared to the old (and thus they are more likely to live in social housing and/or flats), and the increased likelihood of them being located in a city. Age and wealth seem to buy peace.

The noise of neighbours has meant that at some time in the previous 12 months over a third of Europeans in our survey have been woken up by their neighbours at some point, with a quarter saying they have been prevented from getting to sleep by the noise of neighbours.

There are arguably three responses to the problems of noisy neighbours; put up with it stoically, fight it, or run:

- in the past year 8% of those surveyed have taken up a problem about noise with their neighbours, this is as high as 12-13% in France and Spain, but as low as 5% in the UK, Germany and Belgium.
- nearly half of all respondents in the survey have at some time complained either directly to their neighbours, or to someone in authority about a noise issue caused by

a neighbour or someone living in the immediate area - 32% complained directly, 11% have at some time complained to the police, with a small proportion complaining to the local authority / landlord. 1% has gone on to complain to an elected representative.

- more seriously, 3% of respondents moved house in the last 12 months because of the noise caused by their neighbours. This equates to nearly 10m people across the 10 countries surveyed. This is perhaps the clearest indicator of the seriousness of noise pollution and the impact it has on quality of life

Figure 2.4 People moving house in last 12 months due to noisy neighbours

Country	Population/ million	% moved in last 12 months	Number moved in last 12 months / million
Austria	8	4%	0.3
Belgium	10	5%	0.5
France	60	4%	2.1
Germany	83	3%	2.1
Italy	60	2%	1.2
Netherlands	17	3%	0.5
Norway	5	4%	0.2
Russia	146	1%	1.5
Spain	40	2%	0.8
UK	60	1%	0.6
Total	488		9.7

Source: The AEG-Electrolux Noise Report

Base: All (200 in each country)

Chapter 3

Noise of our own making

One of the major sources of noises made within the home is domestic appliances. Domestic appliances are a relatively small irritant compared to ‘man-made’ noises generated by neighbours, for example, but nearly 1 in 10 say that it is a real problem (22% of respondents had had a fight with someone in their house at some time over the noise they were making – but most of these fights were about the levels of noise made by TV or music).

Figure 3.1 Ownership of domestic appliances across Europe

Country	Dish washer	Cooker hood	Separate tumble dryer
Austria	74%	70%	41%
Belgium	52%	94%	67%
France	61%	76%	51%
Germany	68%	74%	48%
Italy	58%	76%	12%
Netherlands	60%	75%	74%
Norway	85%	52%	47%
Russia	12%	55%	2%
Spain	55%	87%	31%
UK	48%	56%	53%

Source: The AEG-Electrolux Noise Report
Base: All (200 in each country)

Ownership of domestic appliances is widespread, in particular the core essentials of washing machines, vacuum cleaners, and refrigerators, at nearly 100% penetration. This universal ownership has now almost been achieved by microwaves, where penetration was 88% across those participating in the survey (lowest at 69% in Italy, and highest at 97% in France and the Netherlands). Of the three other appliances examined in the survey, there were widespread differences in their penetration across Europe, driven by wealth, but as importantly cultural norms:

- dishwasher penetration was lowest in Russia at 12%, and highest at 85% in Norway. However, penetration in the UK, one of the richer countries in Europe, was relatively low at 48%.

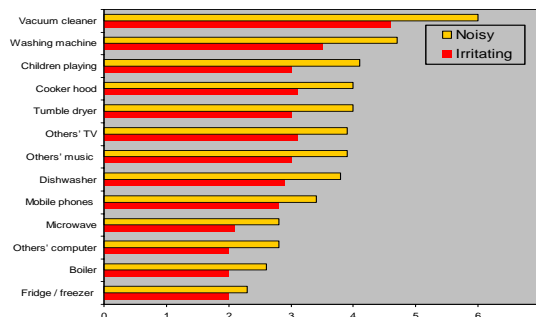
- Belgium stands out as the country where people are most likely to have cooker hoods

at 94% penetration, with the UK, Norway and Russia lowest at just over 50% penetration.

- tumble dryers have hardly started to brush the surface in Russia at 2% penetration, but are also relatively unpopular, or unneeded, in the warmer southern climates of Italy (12%) and Spain (31%)

Respondents were asked how noisy each of their domestic appliances was, and how irritating they found each noise. The results challenged the assumption that noise is subjective (i.e. some noises are fundamentally irritating, out of all proportion to their volume), as there was a strong correlation between the perceived noise of the appliance and the level of irritation it caused. Vacuum cleaners and washing machines dominate the sources of in-home noise, with cooker hoods and tumble dryers following reasonably closely behind (among those who own them).

Figure 3.2 Noise sources in the home



Source: The AEG-Electrolux Noise Report
Base: Asked of those for whom the question applied i.e. own appliance, have children etc

Respondents were also asked about other sources of noise generated within their own home, such as other people’s music, mobile phones etc. The most significant of these results was that people with children suffer the added noise burden of children playing – which they rate alongside tumble dryers!

An independent and more scientific evaluation of the decibels generated by average domestic appliances, reinforces the accuracy with which respondents assessed the noise generated by refrigerators, dishwashers, cooker hoods and washing machines, but shows that they seem to underes-

estimate the noise levels of the average television.

It should be noted that an increase of 3dB doubles sound levels, such that an average cooker hood is 5 times louder than a dishwasher.

It should be noted that the noise performance of domestic appliances varies widely, as will be discussed further in Chapter 5.

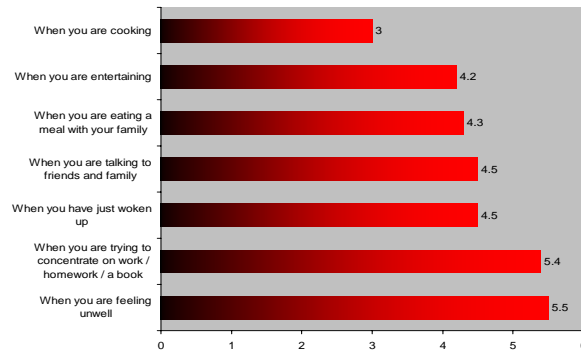
Figure 3.3 Decibel levels generated by average domestic appliances

Sound	Level of sound (dB)
The threshold of hearing	0dB
The sound of a whisper	20dB
W.H.O. recommendation for undisturbed sleep	30dB
Refrigerator or a library	40dB
Average dishwasher	50dB
Average cooker hood	65dB
Average washing machine or TV	70dB
Prolonged exposure above this can damage hearing	85dB
Food processor, lawn mower	90dB
Thunder, loud stereo	120dB
Threshold of pain	130dB
Fireworks, plane taking off	140dB
Gunshot	150dB

Source: AEG-Electrolux

The prima face evidence thus suggests that the noise generated by domestic appliances in the home is so small as to be irrelevant (although neighbours may disagree). However, the research showed that while on average it may not be a problem, it can become a real irritant on certain occasions or certain times of day. The noise of conventional appliances is such that they can disturb people when they are vulnerable, such as early in the morning, or when they are unwell, but more pertinently when the normally 'acceptable' level of background noise they generate overwhelms other noises or disturbs concentration. Thus the noise of domestic appliances is a real problem if people are working nearby, or talking to friends or relatives, whereas it is barely an issue during more solitary activities such as cooking.

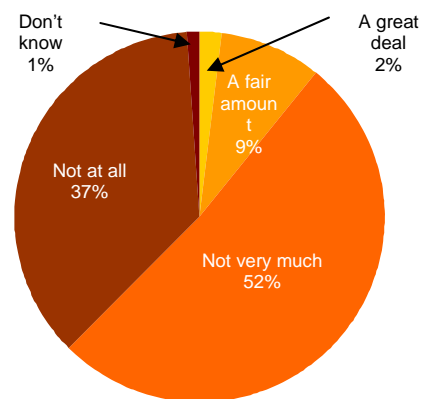
Figure 3.4 Occasions where noise from appliances becomes problematic



Source: The AEG-Electrolux Noise Report
Base: All (2,000)

Overall, around 1 in 10 respondents said their quality of life was affected to some degree by noises generated within their own home, with 2% saying it affected their life a lot. This view varied significantly around Europe, with over a quarter of Italians and nearly 1 in 4 French saying it is a problem to some degree, whereas less than 1 in 20 people in Austria, Netherlands and Norway say it is an issue.

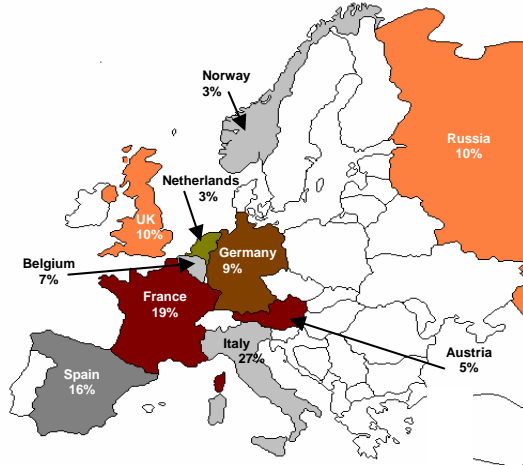
Figure 3.5 The impact of noise made in the home on the quality of life



Source: The AEG-Electrolux Noise Report
Base: All (2,000)

Figure 3.6 Impact of noise of own making around Europe

Percentage saying noise in home affects their quality of life 'a great deal' or 'a fair amount'



Source: The AEG-Electrolux Noise Report
Base: All (200 in each country)

Chapter 4

The kitchen; the noise hub of the home

The kitchen is the central hub of the home – as true in Oslo, as it is in Vienna or Frankfurt. As would be expected, the kitchen is the place people cook, and for many the place they regularly eat - nearly 6 in 10 respondents in the survey relax in the kitchen, talking and chatting with friends and relatives at least once a week. But it is the range and frequency of activities less obviously associated with the kitchen that cements its place at the centre of the home:

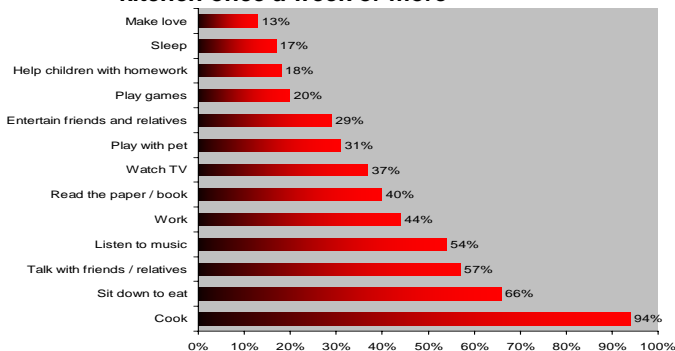
- many use it as their leisure centre with over half of those taking part in the survey listening to music in the kitchen, nearly 4 in 10 watching TV, and 4 in 10 reading in the kitchen at least once a week.
- a sign of the blurring boundaries between home and work is indicated by the 44% of respondents in the survey who work in the kitchen at least once a week.
- for a significant minority the kitchen is also the bedroom, with 17% of Europeans surveyed sleeping in the kitchen at least once a week, and 13% making love in the kitchen – although there was no indication whether the two were linked.

Patterns of use of the kitchen were mostly fairly consistent across the 10 countries surveyed, but Italy stood out, with more Italians using the kitchen for more aspects of family life; 86% eat in the kitchen at least once a week, 74% watch TV in the kitchen at least once a week, and 22% of Italians make love in the kitchen at least once a week.

Partly in order to support these activities, and partly reflecting housing stock and cultural norms, the kitchen is also the main location for many domestic appliances. Most people in the survey with domestic appliances such as cooker hoods, dish-washers, microwaves and fridges / freezers kept them in their kitchen, but the location of other items varied enormously across Europe, most noticeably washing machines (and tumble dryers):

- 73% of people in the UK keep their washing machine in the kitchen, compared to just 3% in Norway
- 67% of Russians and 58% of Austrians keep their washing machines in the bathroom
- 48% of Belgians keep their washing machine in the utility room
- 28% of Germans keep their washing machine in the cellar.

Figure 4.1 Activities undertaken in the kitchen once a week or more



Source: The AEG-Electrolux Noise Report
 Base: All (2,000)

Figure 4.2 Equipment kept in the kitchen

	Cooker hood	Microwave	Fridge/freezer	Dish washer	Boiler	Washing machine	Tumble dryer	Vacuum cleaner
Austria	100%	98%	91%	98%	18%	13%	7%*	8%
Belgium	99%	97%	86%	89%	10%	13%	5%	8%
France	98%	99%	94%	97%	42%*	30%	15%	6%
Germany	99%	98%	95%	98%	42%*	14%	4%*	10%
Italy	95%	96%	97%	97%	28%*	12%	4%**	6%
Netherlands	100%	94%	91%	96%	36%*	14%	10%	7%
Norway	98%	99%	96%	98%	81%**	3%	0%*	8%
Russia	99%	99%	93%	88%**	39%*	23%	n/a	4%
Spain	99%	98%	96%	94%	35%*	40%	16%*	13%
UK	100%	97%	92%	93%	42%	73%	39%	17%

* = low base size ** = very low base size : Caution on interpretation of these results

Source: The AEG-Electrolux Noise Report
Base: Those who own each appliance in each country

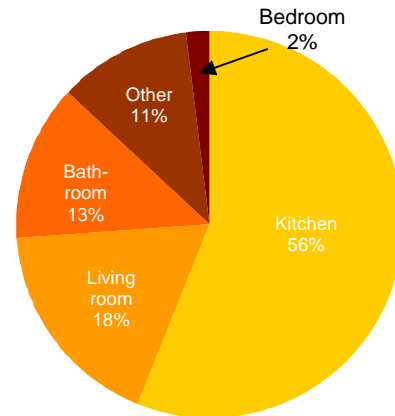
Figure 4.3 Location of washing machines across Europe

Source: The AEG-Electrolux Noise Report
Base: Those who own a washing machine in each country

	Kitchen	Bathroom	Utility room	Cellar	Outside building	Other Room
Austria	13%	58%	12%	14%	1%	4%
Belgium	13%	20%	48%	9%	2%	10%
France	30%	30%	31%	4%	3%	4%
Germany	14%	40%	15%	28%	1%	3%
Italy	12%	52%	30%	4%	4%	3%
Netherlands	14%	38%	24%	1%	1%	22%
Norway	3%	39%	40%	16%	2%	2%
Russia	23%	67%	8%	1%	2%	3%
Spain	40%	7%	42%	6%	4%	3%
UK	73%	2%	21%	1%	1%	3%

Given the uses the kitchen is put to across Europe and the location of domestic appliances, it is unsurprising that the kitchen was seen by over half of respondents as the noisiest room in the house, with respect to the noise made by equipment and machines. A plurality thought it was the noisiest room in the house in every country surveyed.

Figure 4.4 The noisiest room in the house (with respect to appliances/machines)



Source: The AEG-Electrolux Noise Report
Base: All (2,000)

The noise that domestic appliances make is such that, albeit in a minor way, they change the way people use their kitchen and the appliances within it.

A third of those with cooker hoods and washing machines chose not to use it some or all of the time, (when the noise makes other activities difficult) and a fifth of those with dishwashers do not use it some or all of the time for the same reason.

Figure 4.5 Appliances owned, but not used at certain times,

	Cooker Hood	Dishwasher	Washing machine
% not used at certain times	34%	22%	31%
Situations when not used...			
All the time	12%	5%	3%
When friends / relatives were around for a chat	46%	52%	33%
When entertaining	31%	36%	26%
When baby / child is sleeping	12%	16%	26%
Other	32%	29%	45%
Don't know	2%	1%	0%

Base: Those who own each appliance in each country / Those who do not use it at certain times
Source: The AEG-Electrolux Noise Report

In the light of this, it is perhaps unsurprising that 4 in 10 respondents agreed, or strongly agreed that they would like a quieter kitchen, although this varied widely across the countries surveyed, from just 18% in the Netherlands to 64% in Spain.

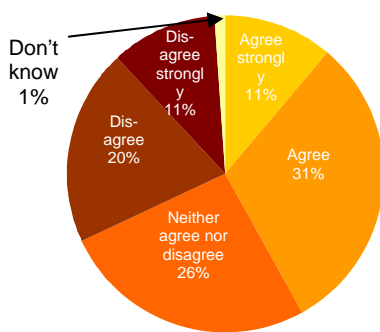
Chapter 5

Dealing with noise in the kitchen

In earlier chapters it has been shown how noise is a problem in the home, and that domestic appliances play a small but significant part in this problem. For many, there is a sense of quiet resignation to the problem, with 4 in 10 people surveyed agreeing that the noise of equipment in the home is a curse of modern life.

Figure 5.1 Noise, the curse of modern life?

Percentage agreeing with statement: 'The noise of equipment in the home is a curse of modern life'



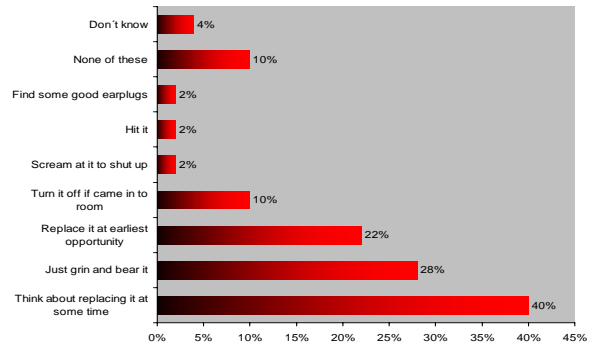
Source: The AEG-Electrolux Noise Report
Base: All (2,000)

Others take a more active role, with 16% saying they have moved a domestic appliance because it was too noisy, while 14% have gone further and thrown it away. The items moved tend to be the more expensive items such as washing machines and fridges, while the item most likely to have been thrown away is a vacuum cleaner.

All respondents were asked what they would do in the hypothetical situation that they had a noisy piece of equipment in the kitchen, such as a dishwasher. The most common responses were to put off the day when it would have to be replaced, or just grinning and bearing it. Only 1 in 5 said they would replace it immediately, highlighting the financial barrier to replacing domestic appliances. A few stated they would take a more emotional response, from screaming to hitting the offending appliance.

Figure 5.2 Reactions to noisy equipment in the kitchen

What people say they would do, if they had a really noisy piece of equipment in the kitchen such as a dishwasher?

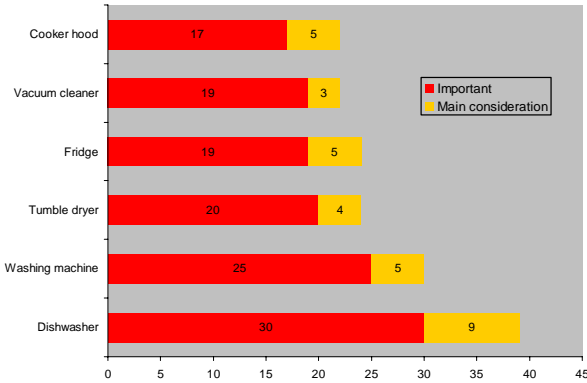


Source: The AEG-Electrolux Noise Report
Base: All (2,000)

These data show the importance of choosing the right domestic appliance initially. For the vast majority of respondents, the noise a particular appliance makes had only been a minor consideration (if at all) when it was purchased. Only around 1 in 4 people, who had bought one or more of a vacuum cleaner, washing machine, dishwasher, cooker hood, fridge or tumble dryer, took serious account of the noise it made when they bought the appliance, with around half not even considering the noise it may make.

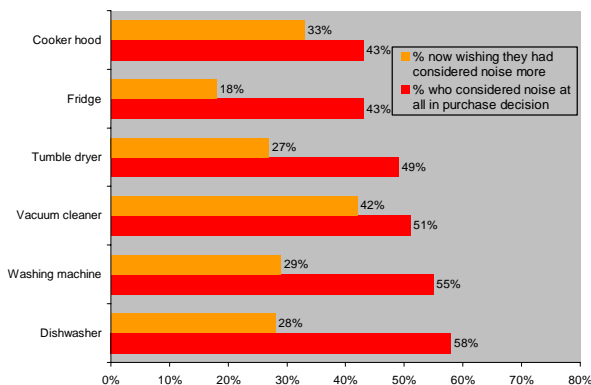
In retrospect, many wish they had thought about it more; 42% of those with vacuum cleaners wish they had taken more account of the noise it made; 29% of those with washing machines, 28% of those with dishwashers, 33% of those with cooker hoods, 27% of those with tumble dryers and 18% of those with refrigerators. These figures really highlight the extent to which, historically, domestic appliances have not been meeting the needs of consumers, when the context of real, everyday use is taken into account.

Figure 5.3 The importance of noise performance in purchase decisions



Source: The AEG-Electrolux Noise Report
Base: Those who own one of each item

Figure 5.4 The retrospective importance of noise in purchase decisions



Source: The AEG-Electrolux Noise Report
Base: Those who own one of each item

This retrospective importance placed on noise in the purchase decision is further highlighted by the results of a question which asked respondents to choose between a standard appliance, and an appliance that produced half as much noise, but cost 10% more. Clearly this is a difficult thing for respondents to judge, as brand, energy efficiency and many other things would in reality be taken in to account. But the results illustrate the desire for a quieter home, benefiting both the householder and their neighbours:

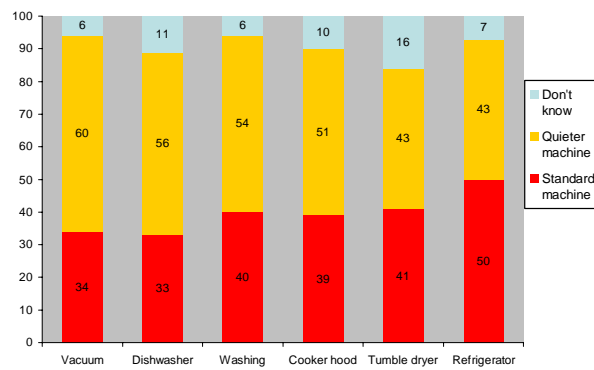
- 60% of respondents would choose the quieter vacuum cleaner
- over half would choose the quieter dishwasher, refrigerator or washing machine

- more than 4 in 10 would choose the quieter tumble dryer or cooker hood.

These results were fairly consistent across Europe.

Figure 5.5 The attractiveness of quieter appliances

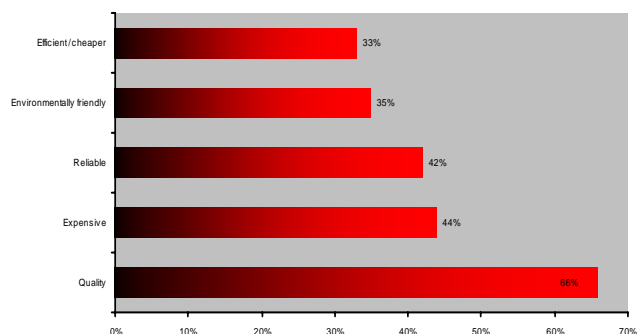
Percentage that would choose an appliance costing 10% more, but making half the noise



Source: The AEG-Electrolux Noise Report
Base: All (2,000)

Many people believe these quieter machines would not only be better because of their noise performance, but also because quieter performance is strongly associated with quality, reliability, efficiency and thus environmental friendliness.

Figure 5.6 Associations with quieter domestic appliances



Source: The AEG-Electrolux Noise Report
Base: All (2,000)

