

**Initial<sup>®</sup>**

**THE  
ECONOMIC  
IMPACT OF  
OFFICE  
HYGIENE:**

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AN INTERNATIONAL  
PERSPECTIVE

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February 2014



Making Business Sense

**Authorship and acknowledgements.**

This report has been produced by Cebr, an independent economics and business research consultancy established in 1992. The study was led by Daniel Solomon, a Cebr Economist, and was overseen by Scott Corfe, Cebr's Head of Macroeconomics.

**London, February 2014**

# Contents

<b>Foreword from Mark Reader, Initial Hygiene</b>	<b>4</b>
<b>Executive summary</b>	<b>5</b>
<b>Introduction to the impacts of poor office hygiene</b>	<b>7</b>
<b>1 Australia findings</b>	<b>10</b>
<b>2 Belgium findings</b>	<b>12</b>
<b>3 France findings</b>	<b>144</b>
<b>4 Germany findings</b>	<b>177</b>
<b>5 Italy findings</b>	<b>199</b>
<b>6 The Netherlands findings</b>	<b>21</b>
<b>7 UK findings</b>	<b>244</b>
<b>Conclusion &amp; recommendations</b>	<b>247</b>

### **Foreword from Mark Reader, Initial Group Category Director**



Hygienic environments are essential for public health. Urbanisation, travel, population growth and aging demographics all contribute to viral outbreaks, whilst shared environments like offices, washrooms and transport all perpetuate their transmission. Employers, retailers and infrastructure providers have a legislative responsibility to provide healthy, clean environments, for the benefit of their workforces and businesses.

Contagious viruses can have a drastic effect on the workforce and business productivity. It's a lucky office that survives winter un-blighted by Norovirus or a flu pandemic, which often impacts up to 40% of the workplace. Beyond the anecdotal evidence, we are constantly reminded of the flu virus' mutative qualities and the growing ineffectiveness of medication in counteracting it.

Hygiene, by its very nature is a personal matter, and therefore good hygiene practices need to be instigated on a local as well as national scale. With workplaces providing such an ideal environment for

*"The seriousness of the problem has placed hygiene high on the international agenda, as health leaders seek to neutralise the escalating threat posed to national welfare"*

the spread of bacteria, employers and employees need to recognise their responsibility to prevent this by maintaining offices to the highest possible hygiene standards. It's important to remember hygiene has both the seen and unseen factors. There's never been a more dangerous approach to hygiene than 'out of sight, out of mind'. Past research from Initial has revealed that the typical office worker's hands come into contact with 10

million bacteria per day, with a phone being the most contaminated object on the desktop, holding up to 25,127 microbes per square inch.

Through undertaking relatively small hygiene behaviours; rigorously washing and drying hands after visiting the washroom employees can help guard against workplace contagion. Whether it's not washing our hands every time we visit the washroom or using our mobiles while on the toilets office workers ignore the risk of passing on germs and viruses through handshakes or surfaces.

But the onus shouldn't just be on the employee, employers need to play their part too. By providing washrooms that employees feel comfortable using and demonstrates investment in hygiene facilities, such as soap dispensers, hand dryers, and no-touch bins, that they want to interact with, employers can instigate behavioural changes that will maintain the good health of their employees and businesses. It can be a small investment, but as the research shows, improved hygiene in the office can have a big impact on levels of employee behaviour which in turn helps businesses to succeed.

We all need to take more responsibility to improve our hand hygiene and employers need to ensure that the right facilities are available. It is the responsibility of the employer to provide high quality, hygienic environment and the responsibility of the employee to do their bit to support higher standards of hygiene. This research demonstrates the quantifiable impact hygiene can have to businesses and economies.

Mark Reader,  
Initial Group Category Director

## Executive summary

Developed economies are highly reliant on office workers and, by disrupting office life, poor office hygiene can consequently damage the growth prospects of developed economies considerably. This report, undertaken by the Centre for Economics and Business Research (Cebr) on behalf of Initial Hygiene, examines the impact of poor office hygiene on developed-world economies: the UK, Germany, France, Belgium, the Netherlands, Italy and Australia and the opportunity for businesses to improve their financial performance through improved office hygiene, by demonstrating return on investment (ROI).

Based on survey data of about 1,000 office workers in each country and official EU KLEMS (Capital, Labour, Energy, Material and Services) data on office worker productivity, Cebr have identified three negative economic consequences of poor office hygiene:

1. By causing office workers to take time off sick or lost time at the office, substandard office hygiene is estimated to reduce economic output in developed economies.
2. Inefficient workplace hygiene decreases employee wellbeing, making the office working environment less enjoyable.
3. Employers may be made less profitable by being obliging to pay higher wages to office staff. Across developed economies, the typical office worker would be willing to sacrifice a modest pay reduction if hygiene in the office were of a higher standard.

*“Cleanliness and hygiene are not the same. Something can look clean, but not be hygienically clean i.e. germ-free”*

The report aims to identify both environmental and behavioural issues in the workplace. Poor office hygiene might cause employees to waste time while at work, for instance: cleaning kitchen surfaces or conference rooms of old food before they can be used, queuing for a clean lavatory or cleaning a lavatory before it can be used. Exposure to old food or dirty lavatories in the office environment (as well as wasting time) has the potential to cause employees to fall ill.

At the upper end of the scale, poor office hygiene caused the average Italian office worker to lose a total of 4.0 days while at work and miss 1.6 days off sick each year. but at the bottom end of the scale, figures only fell to 1.4 days and 0.4 days for office workers in the Netherlands.

Poor office hygiene reduces the amount of time in which office workers can do their jobs, so substandard hygiene in offices weighs on GDP in developed economies where office workers are a large percentage of employees. In 2013, these gross domestic product (GDP) costs are expected to be highest in France and Italy, at €14.4 bn (0.7% of GDP) and €13.9 bn (0.9% of GDP) respectively. Middling costs occur for Australia, the UK and Germany at \$11.4 bn (0.7% of GDP), £13.7 bn (0.8% of GDP) and €12.6 (0.5% of GDP), respectively. In 2013, these costs are expected to be lowest in Belgium and the Netherlands, at €2.8 bn (0.7% of GDP) and €2.4 bn (0.4% of GDP) respectively.

A large proportion of office workers surveyed agreed that their workplace wellbeing could be lifted if office hygiene improved. Some 68% of office workers in Italy agreed that better office hygiene could improve their workplace satisfaction; this was the highest out of all the countries examined. By contrast, this proportion fell to 27% in the Netherlands, the lowest of all the countries examined.

*“Improved hygiene in the office can have a big impact on levels of job satisfaction which in turn helps businesses to succeed”*

*“Employees have a right to expect any monetary sacrifice they would be willing to make to improve hygiene standards in the office to be matched by their organisation continually investing in hygiene facilities”*

In exchange for improved office hygiene, office workers stated that they were willing to have pay reduced. In Italy, the average office worker was willing to take €290 pay reduction each year in exchange for a cleaner office – again the highest out of all countries examined. The figure fell to €120 for German office employees.

In conclusion, poor office hygiene has a significant negative impact on developed economies. As well as decreasing worker satisfaction, it decreases the amount of time in which office employees can work effectively and so limits the overall size of the economy.

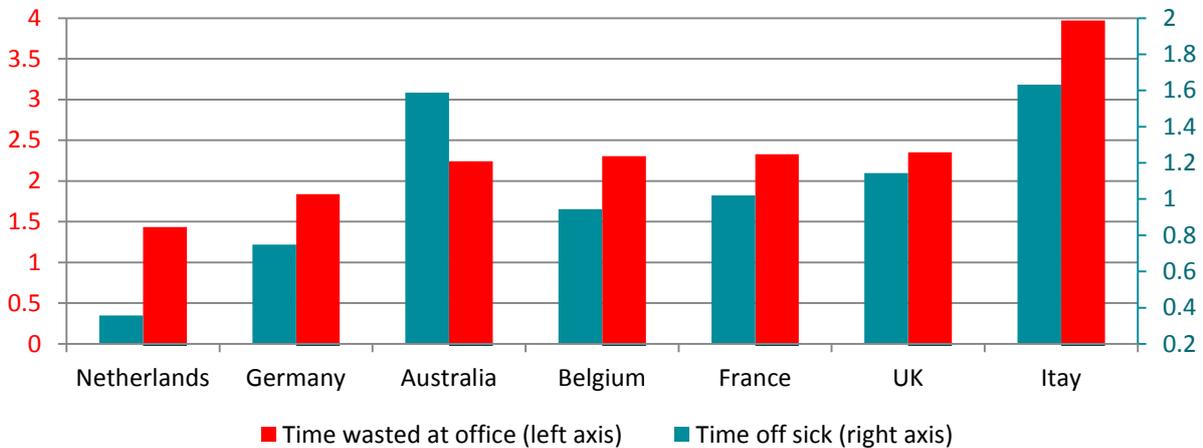
Office hygiene and its impacts are discussed more fully in the following section, where key inter-country findings are illustrated; country-specific findings are addressed from page 10

## Introduction to the impacts of poor office hygiene

This report, undertaken by the Centre for Economics and Business Research (Cebr) on behalf of Initial Hygiene, examines the impact of poor office hygiene on developed-world economies: the UK, Germany, France, Belgium, the Netherlands, Italy and Australia. As some of the world's foremost developed economies, these countries are highly reliant on the services sector and on high value adding office workers. Across the developed world, by making the workplace less enjoyable, less healthy or more onerous for office employees, substandard office hygiene causes three negative economic consequences.

### Lost time in the office and employee absenteeism due to office hygiene

Figure 1 illustrates that office workers took time off sick and lost time while at the office due to poor workplace hygiene in all developed economies. Poor office hygiene impinged most severely on the time of the average Italian office worker who, each year, lost a total of 4.0 days while at work due to substandard office cleanliness. Poor office hygiene also causes the average Italian office worker to miss 1.6 days off sick each year. By contrast, these figures are lowest for office workers in the Netherlands, at 1.4 days and 0.4 days respectively –reflecting their positive view of their existing facilities.



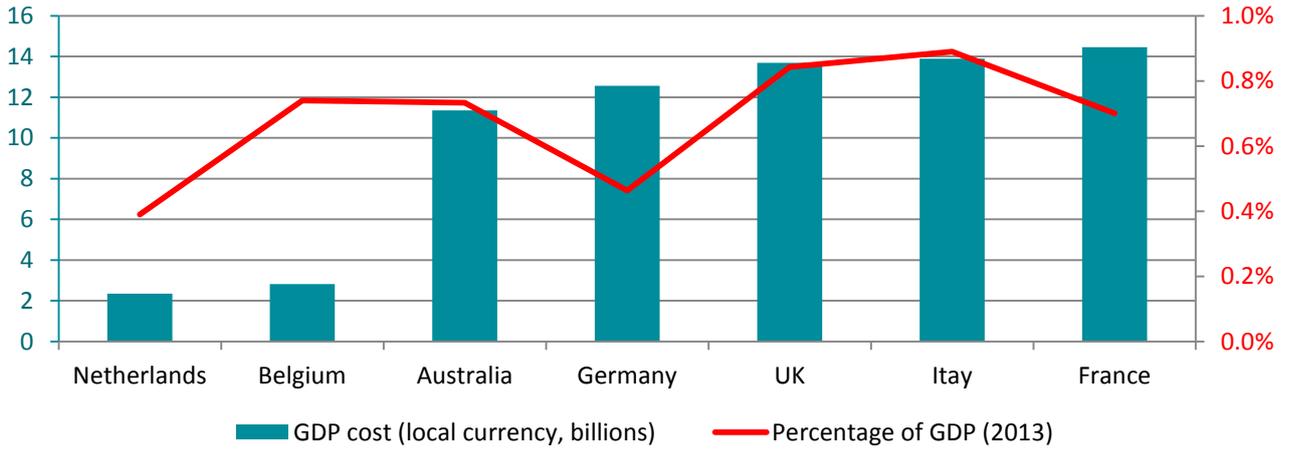
Time off sick or lost due to poor office hygiene (days per year, 2013)

Source: *Opinion Matters, Europe and Australia office hygiene questionnaires, Aug-Sep/2013; Cebr analysis*

Because office workers make a relatively large contribution to developed economies, and because poor office hygiene reduces the amount of time in which they can effectively work, substandard hygiene in offices weighs on the GDP of developed economies. The economic loss associated with poor office hygiene varies substantially between economies. This variation is partially due to the amount of time which poor office hygiene causes the typical employee to lose each day or take time off sick in each sector of any given economy.<sup>1</sup> However, it is also due to: the differing productivity of office workers in each economy; the relative importance of the different sectors which employ office workers in each economy; and the overall size of each economy.

<sup>1</sup> Poor office hygiene might cause employees to waste time while at work, for instance: cleaning kitchen surfaces or conference rooms of old food before they can be used, queuing for a clean lavatory or cleaning a lavatory before it can be used. Exposure to old food or dirty lavatories in the office environment (as well as wasting time) has the potential to cause employees to fall ill.

**Economic impact of hygiene practices in the workplace**



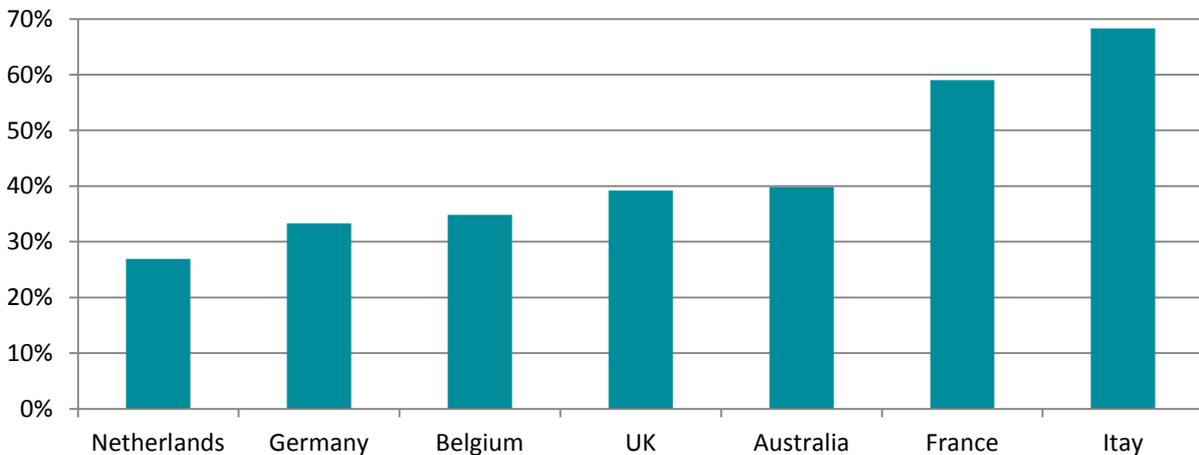
Source: *Opinion Matters, Europe and Australia office hygiene questionnaires, Aug-Sep/2013; EU KLEMS; Cebr analysis*

Figure 2 illustrates that the economic costs associated with poor office hygiene in each economy vary significantly. In 2013, these negative gross domestic product (GDP) impacts are expected to be highest in France and Italy, at €14.4 bn (0.7% of GDP) and €13.9 bn (0.9% of GDP) respectively. In the case of Italy, this result is driven by the relatively large size of the economy and the large amount of time which office workers lose due to poor office hygiene.

Middling costs occur for Australia, the UK and Germany at \$11.4 bn (0.7% of GDP), £13.7 bn (0.8% of GDP) and €12.6 (0.5% of GDP), respectively. In 2013, these impacts are expected to be lowest in Belgium and the Netherlands, at €2.8 bn (0.7% of GDP) and €2.4 bn (0.4% of GDP) respectively. In the case of the Netherlands, this result is driven by comparatively small amount of time which office workers lose due to poor office hygiene.

**Impact of hygiene on workplace wellbeing**

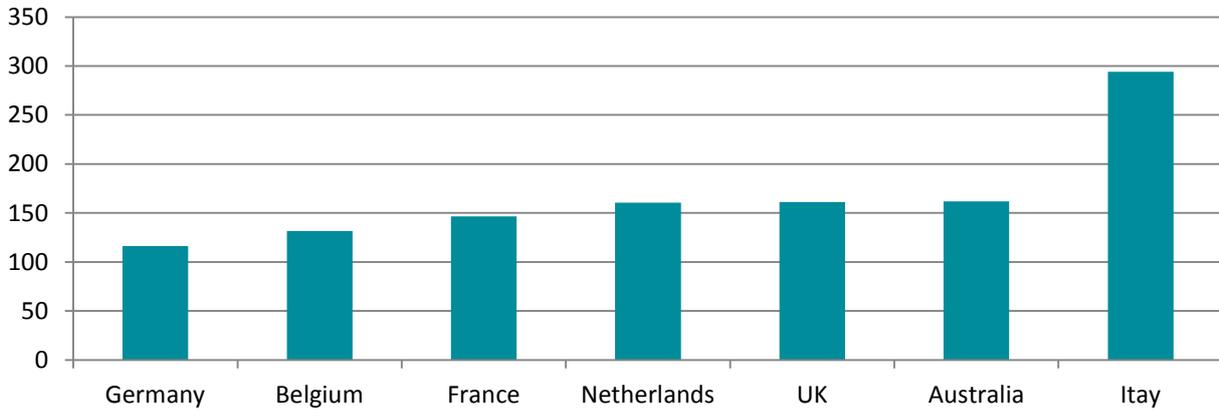
Across developed economies, a large proportion of office workers agreed with the notion that their workplace wellbeing could be lifted by improvements to office hygiene. As shown in Figure 3, the proportion of workers agreeing with this notion was highest in Italy, at 68%. The proportion was lowest in the Netherlands, at 27%.



Percentage of office workers agreeing/disagreeing with the statement “My level of job satisfaction would be better if the hygiene at work was better” (% , 2013)

Source: *Opinion Matters, Europe and Australia office hygiene questionnaires, Aug-Sep/2013; Cebr analysis*

As shown in Figure 4, across developed economies, employees stated that they were willing sacrifice monetary recompense in exchange for improved office hygiene. Italians were willing to take a €290 reduction in their salary *per annum* in exchange for a cleaner office, although this figure fell to €120 amongst German office employees. Overall, the survey data indicated that poor office hygiene may be obliging employers in the developed world to pay higher wages to office staff.



Amount by which a typical office worker would be willing to have annual pay reduced if office hygiene were improved (€, 2013)

Source: *Opinion Matters, Europe and Australia office hygiene questionnaires, Aug-Sep/2013; Cebr analysis. Exchange rates of £1.00 to €1.20 and (Australian)\$ 1.00 to €0.67 were applied.*

Overall, poor office hygiene was found to have a significant negative impact on developed economies: it decreased satisfaction in the workplace and there is evidence that it pushed up staffing costs. If the costs of improving office hygiene are less than the increased staffing costs caused by poor office hygiene, then poor office hygiene could be damaging firm's profitability. Moreover, it made office workers unwell and decreased their time working effectively while in the office. For each country examined in 2013, this was found to harm the economy to the tune of several billion (Australian) dollars, pounds or euros.

## 1 Australia findings

### Key figures snapshot

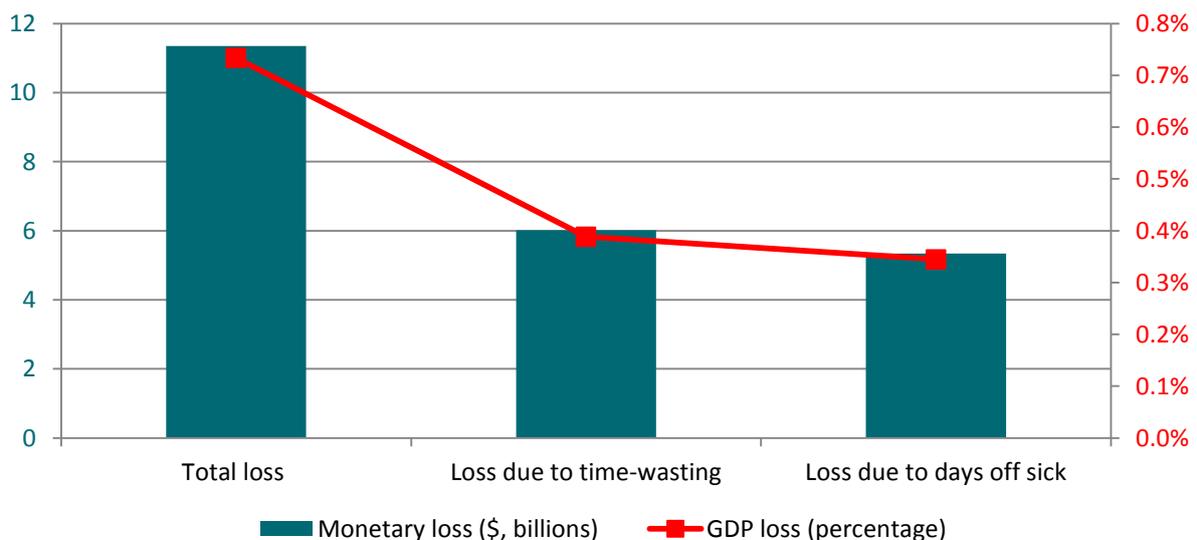
- Poor office hygiene is expected to cost the Australian economy \$11.4bn in 2013:
  - \$6.0bn was due to poor office hygiene causing employees to lose time while at work.
  - \$5.4bn came about because poor office hygiene was directly attributed to employee absenteeism
- Professional services, real estate and banking / finance sectors were hardest hit costing each sector \$3.0bn, \$1.7bn and \$1.4bn, respectively
- 40% of Australian office workers anticipate their satisfaction while at work would rise if workplace hygiene improved
  - 54% for men and 32% for women

In 2013, it is expected that Australian gross domestic product (GDP) will stand at (Australian) \$1.5trn and, as one of the world's most technologically developed countries, Australia is highly reliant on the services sector and office staff to grow more. Each year, substandard hygiene in offices causes office workers in Australia to take 1.6 days off sick and lost a combined total of 2.2 days while at work. Because office workers tend to contribute more to the economy than other employees, by causing office employees to fall sick or lost time in the office, poor office hygiene is estimated to cost the Australian economy some \$11.4bn in 2013.

### Economic impact of hygiene practices in the workplace

Poor office hygiene is having a negative impact on the Australian GDP level. In 2013 in Australia, substandard office hygiene is weighing on GDP by causing office workers to lost time while at work (perhaps having to meeting rooms or kitchens of lost food before clients come to the office). Poor office hygiene is also causing office workers to go home sick, further dampening GDP. As shown in Figure 1, in 2013, poor office hygiene is expected to have reduced Australian GDP by \$11.4 bn, causing GDP to be 0.7% lower than it would have been. Some \$6.0bn was due to poor office hygiene causing employees to lose time while at work. The remaining \$5.4bn came about because poor office hygiene caused office workers to go home sick.

Figure 1 (Australia): GDP cost of poor office hygiene by cause (\$ bn and % of GDP, 2013)



Source: *Opinion Matters, Australia office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

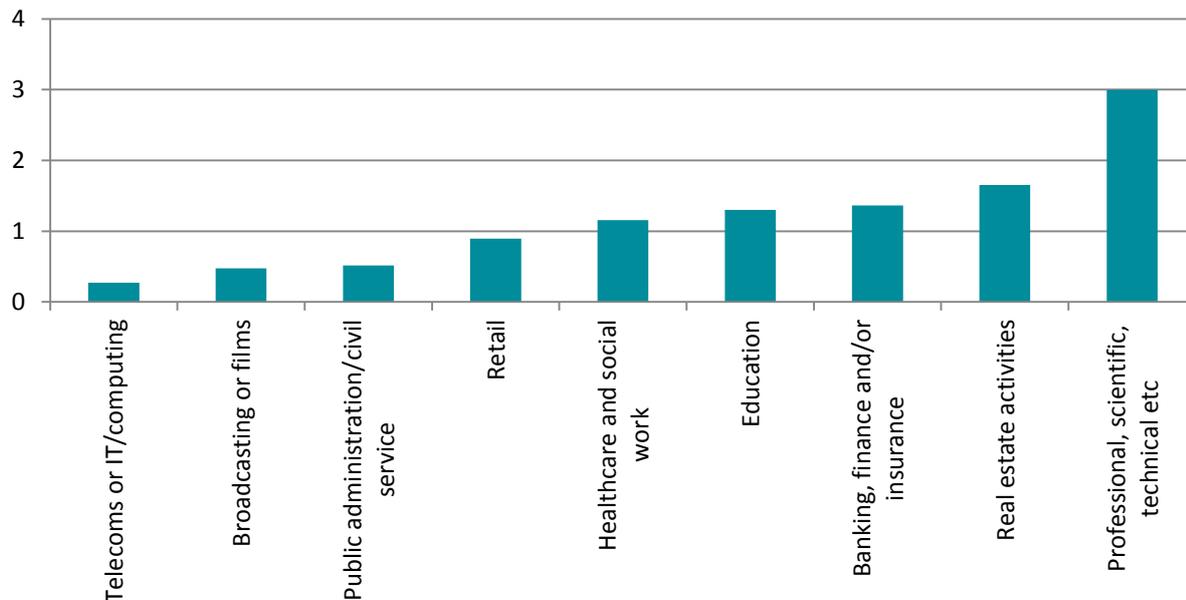
The GDP loss associated with poor office hygiene in Australia is equivalent to a sum substantial enough to cover a very significant amount of infrastructure provision. Specifically, if the Government of Australia had had access to an additional \$11.4 bn in 2013, it would have been enough to pay for 95 new airport

terminals or six state-of-the-art hospitals.<sup>2</sup> In the private sector, it would have been enough to pay the annual wages of 211,000 office staff.

### Economic impact of hygiene practices by sector

Digging deeper behind the headline findings, a lack of cleanliness in offices was found to have different economic impacts throughout the various sectors of the Australian economy, as shown in Figure 2 (Australia). In 2013, these costs are relatively high in the large (i) professional services (ii) real estate and (iii) banking and finance sectors, at \$3.0bn, \$1.7bn and \$1.4bn, respectively. They are lower in the (i) broadcasting and films sectors and (ii) telecoms and IT sectors, at \$0.5bn and \$0.3bn respectively.

Figure 2 (Australia): GDP costs of poor office hygiene by sector (\$bn, 2013)



Source: *Opinion Matters, Australia office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

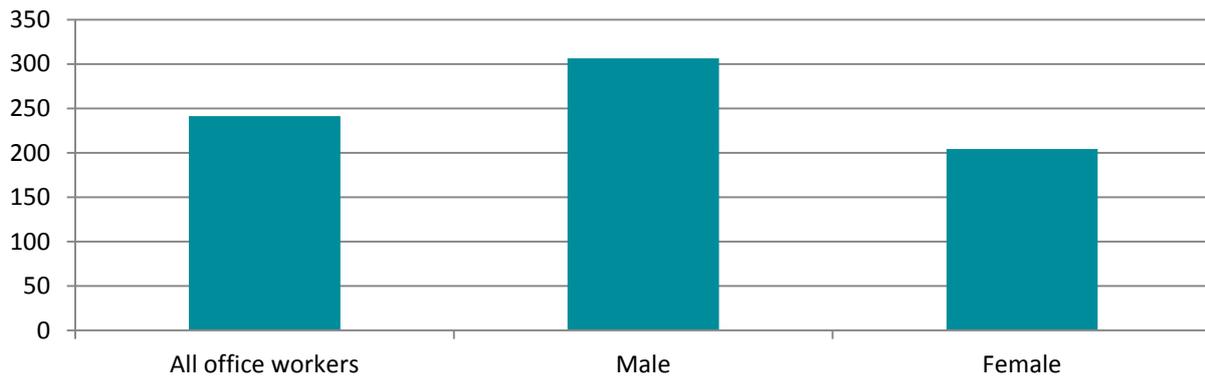
### Impact of hygiene on workplace wellbeing

Unfortunately, survey data suggest that work is being made less enjoyable for Australian office workers by poor office hygiene. If office hygiene were improved, Australian office workers - who can expect to earn \$53,900 in 2013 – would be willing to accept lower wages. The typical office worker would be willing to sacrifice an average of \$240 per year in exchange for a more hygienic office environment. This implies that, by improving office hygiene, employers could reduce wage bills, provided some of those savings are spent on improving the office conditions the office worker is in.

Finally, unhygienic office environments are dampening the wellbeing of office workers in Australia. Some 40% of Australian office workers anticipate their satisfaction while at work would rise if workplace hygiene improved. This estimate is 54% for men and 32% for women. Office workers may well accept lower pay if office hygiene were improved, as shown in Figure 3 (Australia). This could help employers limit wage costs and boost profits (provided the costs of improving office cleanliness are sufficiently low). In 2013, the average Australian office worker would be willing to see their pay reduced by \$240 – 0.5% of typical earnings – in return for cleaner offices. This figure rises significantly to \$310 for men and falls to \$200 for women, illustrating a significant gender gap in terms of willingness to forgo salary in return for a cleaner working environment amongst Australian office staff.

<sup>2</sup> Estimates are based on: a new airport terminal being 70,000m<sup>2</sup>, costing €1,125 per square metre to construct and a EUR: AUD rate of 1.00 : 1.53 the projected \$1.85 billion costs of the new Royal Adelaide Hospital. See: <http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/health+reform/the+new+royal+adelaide+hospital>

Figure 3 (Australia): Amount by which the typical office worker would be willing to have annual pay reduced if office hygiene were improved (\$, 2013)



Source: Opinion Matters, Australia office hygiene questionnaire, Aug-Sep/2013; Cebr analysis

## 2 Belgium findings

### Key figures snapshot

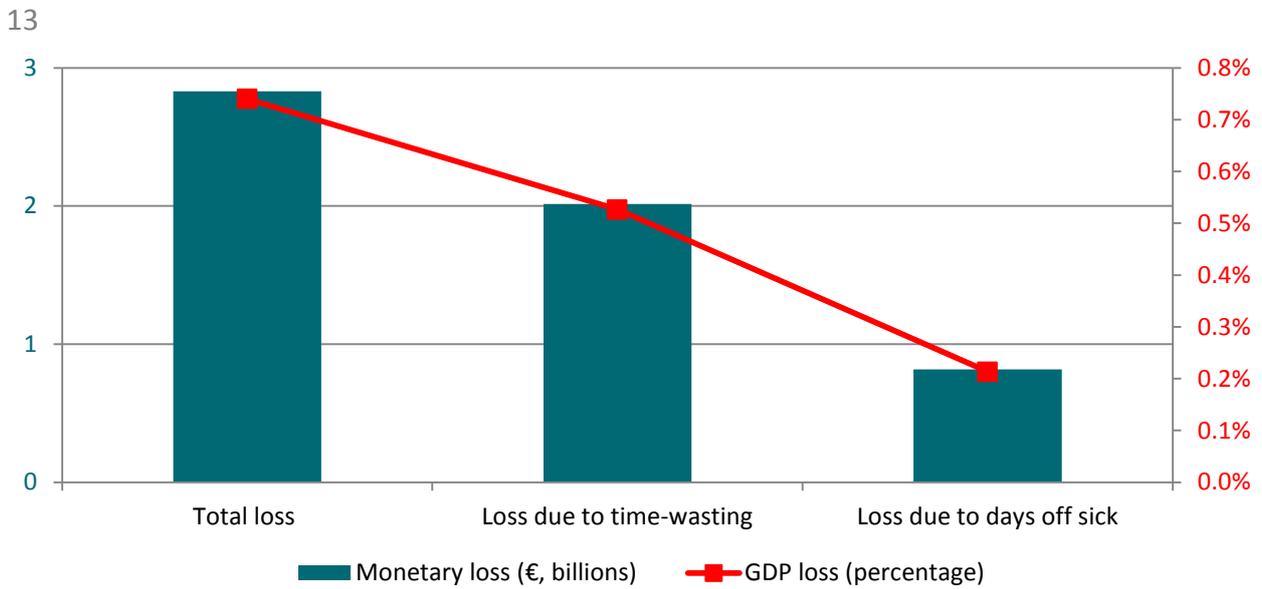
- Poor office hygiene is expected to have cost the Belgian economy €2.8bn in 2013:
  - €2bn was due to poor office hygiene causing employees to lose time while at work.
  - €0.8bn came about because poor office hygiene was directly attributed to employee absenteeism
- Professional services, real estate and education sectors were hardest hit costing each sector €0.7bn, €0.5bn and €0.4bn, respectively
- 35% of Belgian office workers anticipate their satisfaction while at work would rise if workplace hygiene improved
  - 46% for men and 21% for women

The gross domestic product (GDP) of Belgium was estimated to stand at €380 bn in 2013. As one of the world's most developed economies, Belgium is highly focussed on services, meaning that office workers play a crucial role in the nation's economic output. Each year, poor office hygiene causes Belgian office workers to take 0.9 days off sick and makes them lost a combined total of 2.3 days while in the office. Office workers tend to contribute more to the economy than other types of worker; so by decreasing their time working effectively in the office, substandard office hygiene is estimated to cost the Belgian economy some €2.8bn in 2013, equivalent to €1,000 per office worker.

### Economic impact of hygiene practices in the workplace

Poor office hygiene is having a negative impact on the Belgian GDP level. In 2013 in Belgium, substandard office hygiene is weighing on GDP by causing office workers to lost time while at work (perhaps having to meeting rooms of lost food before clients come in for meetings). Poor office hygiene is also affecting GDP more directly, by causing office workers to go home sick. As Figure 1 (Belgium) illustrates, overall, in 2013, poor office hygiene is expected to have reduced Belgian GDP by €2.8 bn, causing GDP to be 0.7% lower than it would have been. Some €2.0bn was due to poor office hygiene causing employees to lose time while at work. The remaining €0.8 came about because poor office hygiene caused office workers to go home sick.

Figure 1 (Belgium): GDP cost of poor office hygiene by cause (€ bn and % of GDP, 2013)



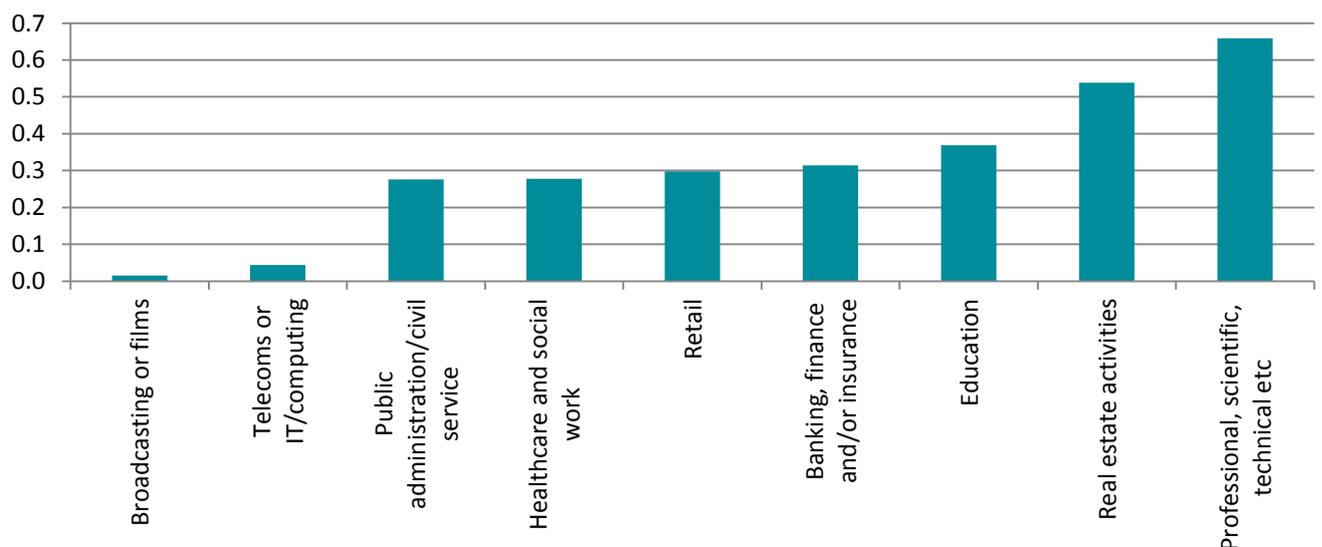
Source: *Opinion Matters, Belgium office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

This €2.8 bn total GDP loss is significant and is equivalent to a sum substantial enough to support a significant amount of public services provision. Specifically, if the Belgian Government had access to an additional €2.8 bn in 2013, it could have been enough to pay for 9 large new hospitals.<sup>3</sup> Beyond the public sector, this is an amount sufficient to cover the wages of 68,000 office workers for a year.

### Economic impact of hygiene practises by sector

Moving down from the level of the entire Belgian economy to the individual economic sectors within it, Figure 2 (Belgium) illustrates that the economic costs of poor office hygiene differ between sectors. In 2013, these costs are relatively high in the large (i) professional services, (ii) real estate and (iii) education sectors, at €0.7bn, €0.5bn and €0.4bn, respectively. They are lower in the (i) telecoms and IT and (ii) broadcasting and films sectors, at €40 mn and €20 mn respectively.

Figure 2 (Belgium): GDP costs of poor office hygiene by sector (€ bn, 2013)



Source: *Opinion Matters, Belgium office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

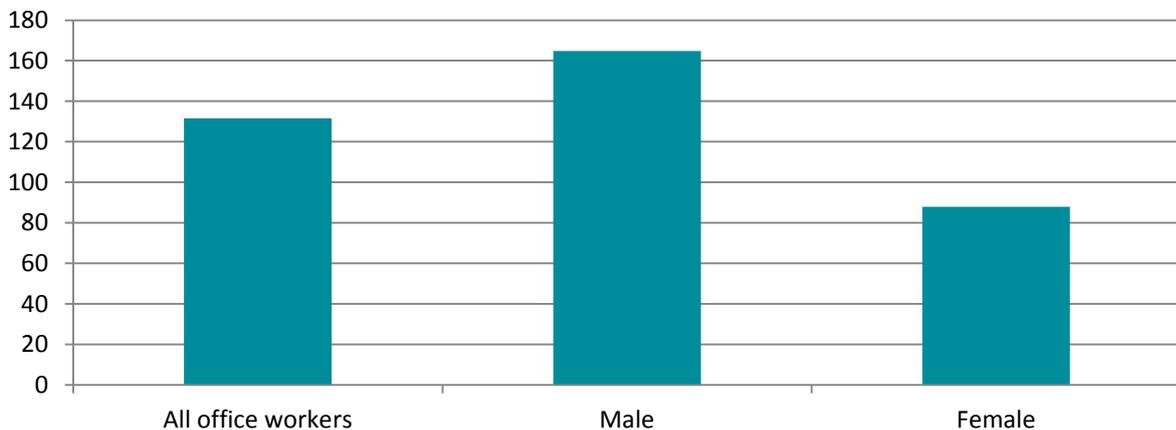
<sup>3</sup> Estimates are based on the €327 million cost of the new hospital at AZ Sint-Maarten. See: [http://europa.eu/rapid/press-release\\_BEL-13-177\\_en.htm](http://europa.eu/rapid/press-release_BEL-13-177_en.htm)

### Impact of hygiene on workplace well being

The average office worker in Belgium is expected to earn €41,500 in 2013, but poor office hygiene is making the workplace less enjoyable for Belgian employees and this could well be raising employers' wage bills. Some 35% of office workers in Belgium predict that their job satisfaction would rise if their workplace hygiene improved. This proportion is significantly higher amongst males (at 46%) than amongst females (at 21%).

The typical office worker in Belgium would be willing to forego €130 of their earnings this year if hygiene were better (as shown as Figure 3). This could help Belgian employers to cut costs and if the costs of improving office hygiene are less than the increased staffing costs caused by poor office hygiene, then improving office hygiene could improve profitability. The typical Belgian office worker would be willing to take a pay cut of €130 in 2013, equivalent to 0.3% of his or her annual wage, if offices were more hygienic. Men seem to be more willing to forgo wages in return for a cleaner office than women are. Male office workers in Belgium would typically be willing to suffer a €160 pay reduction over 2013 if office hygiene improved. The figure is much lower for women, at €90.

Figure 3 (Belgium): Amount by which the typical office worker would be willing to have annual pay reduced if office hygiene were improved (€, 2013)



Source: *Opinion Matters, Belgium office hygiene questionnaire, Aug-Sep/2013; Cebr analysis*

## 3 France findings

### Key figures snapshot

- Poor office hygiene is expected to have cost the French economy €14.5bn in 2013:
  - €10.1bn was due to poor office hygiene causing employees to lose time while at work.
  - €4.4bn came about because poor office hygiene was directly attributed to employee absenteeism
- Real estate, professional services and healthcare sectors were hardest hit costing each sector €3.1bn, €2.7bn and €2.4bn, respectively
- 59% of French office workers anticipate their satisfaction while at work would rise if workplace hygiene improved
  - 65% for men and 53% for women

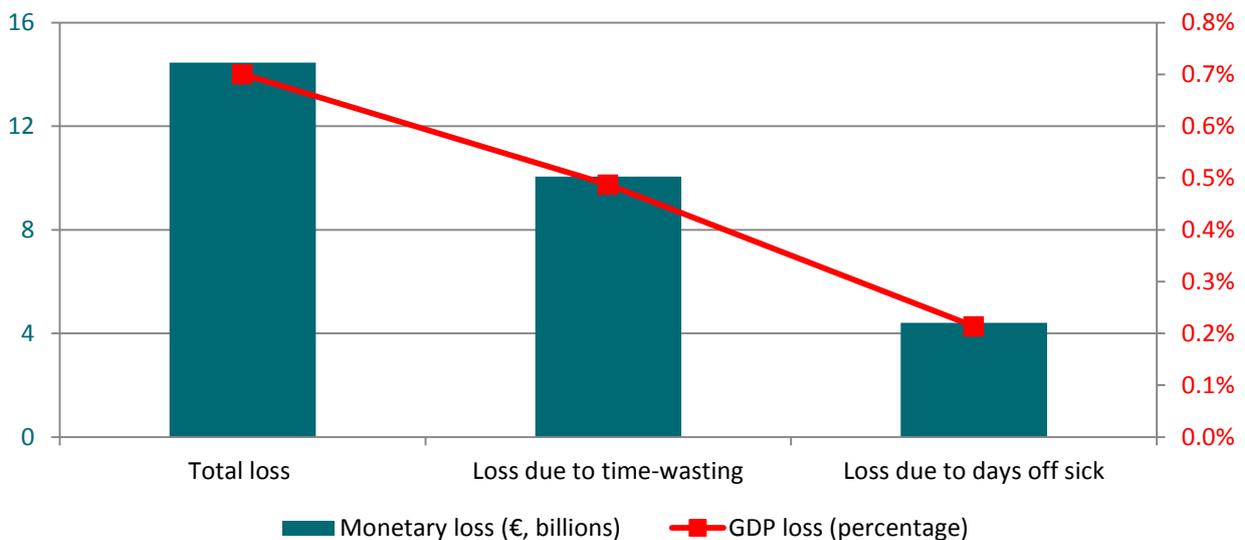
France's hospitality and catering sector is world-beating, but the French economy - with an estimated gross domestic product (GDP) of €2.1 trn in 2013 - is also highly reliant on the broader services sector, in which office workers play a pivotal role. Poor office hygiene causes employees in French offices to take 1.0 days off sick each year and causes them to lose a combined total of 2.3 days while in the office each year. Office workers tend to contribute more to the economy than other types of worker; so by causing

them to take time off sick or lost time at the office, substandard office hygiene is estimated to cost the French economy some €14.5 bn in 2013, equivalent to €900 per office worker.

### Economic impact of hygiene practices in the workplace

Poor office hygiene is having a measurable adverse impact on France's GDP. Substandard office hygiene is causing office workers to lost time while in the office (perhaps having to clean their workspace before becoming productive) and causing them to go home sick - both of which are weighing on French GDP. As illustrated by Figure 1 (France), in 2013, poor office hygiene is expected to have reduced French GDP by €14.5bn, making it 0.7% lower than it would have been. Some €4.4 bn of this impact was due to poor office hygiene making employees go home sick. The remaining €10.1 bn was due to employees loosing time while at work due to poor hygiene facilities (such as finding an alternative washroom, or having to clean an area before being used).

Figure 1 (France): GDP cost of poor office hygiene by cause (€ bn and % of GDP, 2013)



Source: *Opinion Matters, France office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

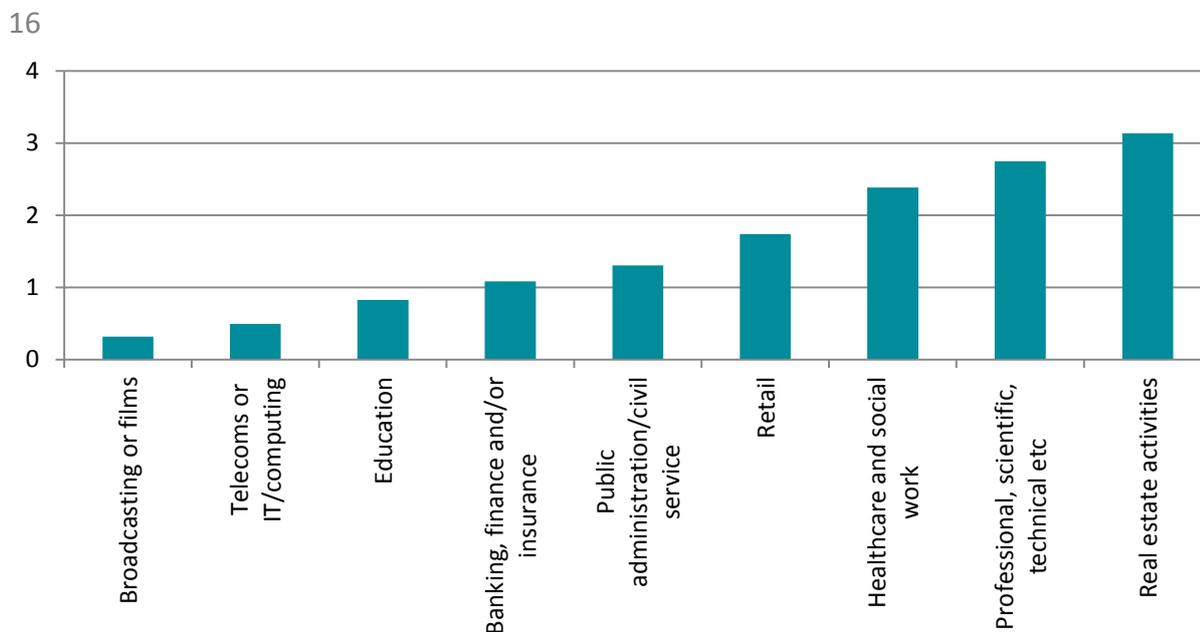
This €14.5 bn total GDP loss is equivalent to a sum substantial enough to make an appreciable impact on French wellbeing spending. Specifically, if the Government of France had had access to an additional €14.5 bn in 2013, it would have been enough to cover 18% of France's estimated 2013 public sector wage bill.<sup>4</sup> Within the French private sector, this amount would have been sufficient to pay the annual wages of 382,000 office staff for an entire year.

### Economic impact of hygiene practises by sector

Looking below the level of the entire economy of France, down to individual economic sectors, Figure 2 (France) illustrates that the economic costs associated with poor office hygiene vary significantly by sector. In 2013, these costs are relatively high in the large (i) real estate, (ii) professional services and (iii) healthcare sectors, at €3.1bn, €2.7bn and €2.4bn, respectively. They are lower in the (i) telecoms and IT and (ii) broadcasting and films sectors, at €0.5bn and €0.3bn respectively.

Figure 2 (France): GDP costs of poor office hygiene by sector (€ bn, 2013)

<sup>4</sup> Estimates are based on a maximum salary of €450,000 for chief executives in France's public sector controlled companies. See: <http://uk.reuters.com/article/2012/06/13/uk-france-economy-salaries-idUKBRE85C0IV20120613>



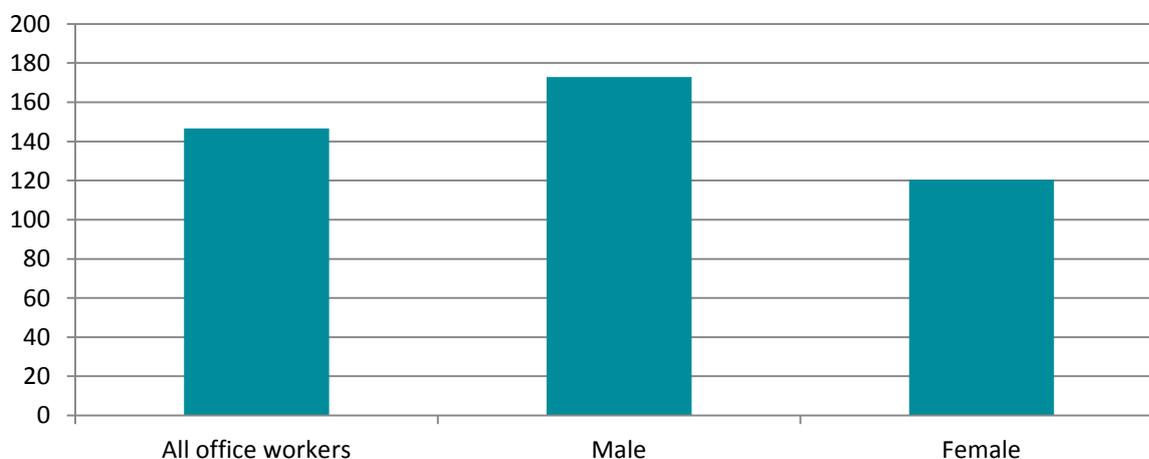
Source: *Opinion Matters, France office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

### Impact of hygiene on workplace wellbeing

Below the sectorial level, individual office workers are also adversely affected by poor office hygiene. Poor office hygiene decreases employee wellbeing: some 59% of French office workers believe that their level of job satisfaction would rise if their workplace hygiene were better. This proportion rises to 65% amongst males and falls to 53% amongst female employees. Figure 3 (France) indicates that French office workers would be happy with lower pay if office hygiene were improved.

The typical French office worker can expect to earn €37,800 in 2013. Survey data suggest substandard office hygiene is making the workplace less enjoyable for French office workers and that this is putting upward pressure on wages: the average French office worker would be willing to forego €150 of their earnings this year if hygiene were better. Improving office hygiene could give companies room to lower wages, thereby reducing costs. The average office worker in France would accept a pay cut of €150 or 0.4% if offices were more hygienic. Men would be willing to take pay cut of €170 per year if office hygiene improved; however, the figure falls to €120 for women.

Figure 3 (France): Amount by which the typical office worker would be willing to have annual pay reduced if office hygiene were improved (€, 2013)



Source: *Opinion Matters, France office hygiene questionnaire, Aug-Sep/2013; Cebr analysis*

## 4 Germany findings

### Key figures snapshot

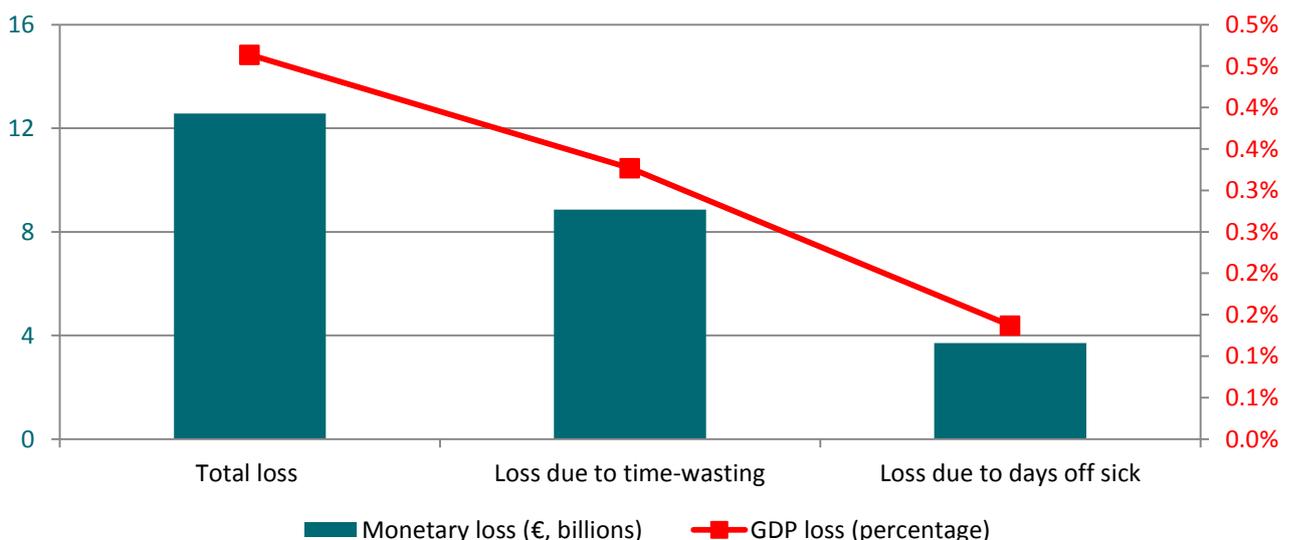
- Poor office hygiene is expected to have cost the German economy €12.6bn in 2013:
  - €6.9bn was due to poor office hygiene causing employees to lose time while at work.
  - €3.7bn came about because poor office hygiene was directly attributed to employee absenteeism
- Real estate, professional services and healthcare sectors were hardest hit costing each sector €2.9bn, €2.1bn and €1.5bn, respectively
- 33% of German office workers anticipate their satisfaction while at work would rise if workplace hygiene improved
  - 38% for men and 27% for women

In addition to its world-renowned manufacturing sector, the German economy – with gross domestic product (GDP) estimated at €2.7 trn in 2013 - is focussed on the office-based services sector. German office workers to take 0.7 days off sick each year due to poor office hygiene which also causes them to lose a combined total of 1.8 days while in the office each year. Office workers tend to contribute more to the economy than other types of worker; so by causing them to take time off sick or lost time at the office, substandard office hygiene is estimated to cost the German economy €12.6 bn in 2013, equivalent to € 560 per office worker.

### Economic impact of hygiene practices in the workplace

Poor office hygiene is depressing the level of German GDP. In 2013, in Germany, poor office hygiene is acting to weigh on GDP in two ways: it causes office workers to lost time while in the office (perhaps having to clean the kitchen/coffee area before they use it) and unsanitary conditions cause office workers to go home sick. As shown in Figure 1 (Germany), taking both effects together, in 2013, poor office hygiene is expected to have reduced German GDP by €12.6 bn, making it 0.5% lower than it would have been. Some €8.9bn was due to poor office hygiene causing employees to lose time while at work. The remaining €3.7 bn resulted from poor office hygiene causing office workers to go home sick.

Figure 1 (Germany): GDP cost of poor office hygiene by cause (€ bn and % of GDP, 2013)



Source: *Opinion Matters, Germany office hygiene questionnaire, Aug-Sep/2013; Cebr analysis*

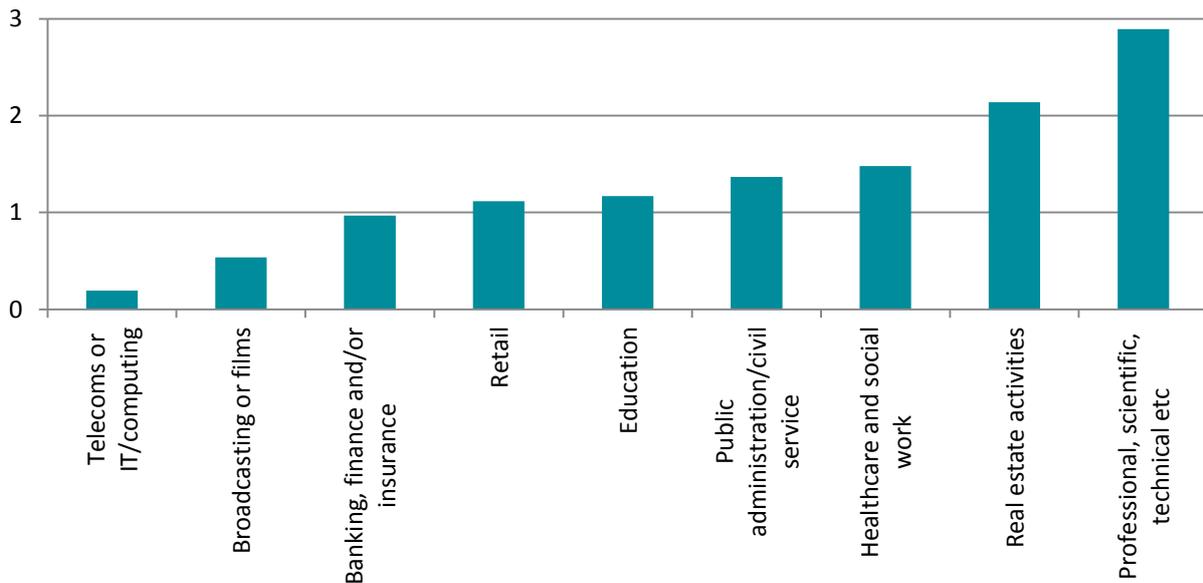
This €12.6 bn total GDP loss is very significant and is equivalent to a sum sufficient to provide a large infrastructure or public services boost to Germany. Specifically, if €12.6 bn had been made available to

the German Government in 2013, it would have been enough to build 160 new airport terminals.<sup>5</sup> Within the private sector, this figure is enough to pay the wages of 288,000 German office staff for 12 months.

### Economic impact of hygiene practises by sector

Figure 2 (Germany) illustrates that the economic costs associated with poor office hygiene are not uniformly spread across the entire economy; they vary significantly by sector. In 2013, these costs are relatively high in the large (i) professional services (ii) real estate and (iii) healthcare sectors, at €2.9bn, €2.1bn and €1.5bn, respectively. They are lower in the (i) broadcasting and films and (ii) telecoms and IT sectors, at €0.5 bn and €0.2bn respectively.

Figure 2 (Germany): GDP costs of poor office hygiene by sector (€ bn, 2013)



Source: *Opinion Matters, Germany office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

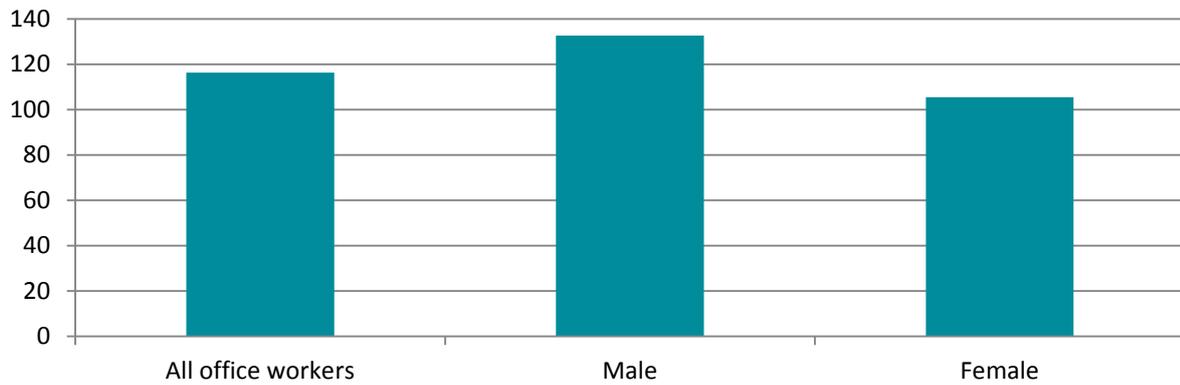
### Impact of hygiene on workplace wellbeing

Below the level of economic sectors, there is a human cost to substandard office hygiene. Specifically poor office hygiene materially impacts employee wellbeing in Germany. There is a human, as well as economic, cost to poor office hygiene: in Germany, substandard office hygiene is making the workplace less enjoyable for office workers and this is putting upward pressure on wages. The average German office worker can expect to earn €45,100 in 2013; survey data suggests they would be willing to forego €120 of that if office hygiene were better.

Some 33% of German office workers believe that if their workplace hygiene were better, their level of job satisfaction would rise. This proportion rises to 38% amongst male office workers and falls to 27% amongst female employees. If office hygiene were improved, Figure 3 (Germany) indicates that German office workers would be willing to accept lower wages. This might give employers scope to lower wages, thereby reducing costs and raising profitability (provided the costs of improving office hygiene are sufficiently low). The typical German office worker would be willing to take a pay cut of €120 or 0.3% if office hygiene improved. This rises to €130 for men and falls to €110 for women.

Figure 3 (Germany): Amount by which the typical office worker would be willing to have annual pay reduced if office hygiene were improved (€, 2013)

<sup>5</sup> Estimates are based on: a new airport terminal being 70,000m<sup>2</sup> and costing €1,125 per square metre to construct. See: Turner and Townsend, 2012, International Construction Cost Survey



Source: *Opinion Matters, Germany office hygiene questionnaire, Aug-Sep/2013; Cebr analysis*

## 5 Italy findings

### Key figures snapshot

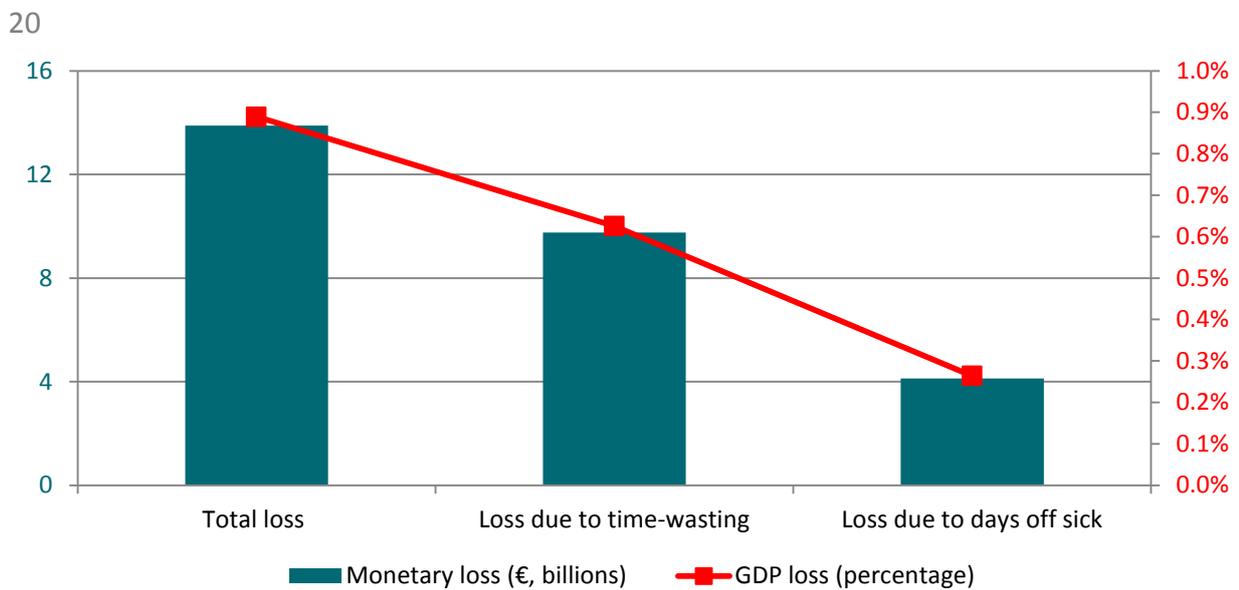
- Poor office hygiene is expected to have cost the Italian economy €13.9bn in 2013:
  - €9.8bn was due to poor office hygiene causing employees to lose time while at work.
  - €4.1bn came about because poor office hygiene was directly attributed to employee absenteeism
- Professional services, civil services and healthcare sectors were hardest hit costing each sector €2.8bn, €2.5bn and €2.0bn, respectively
- 68% of Italian office workers anticipate their satisfaction while at work would rise if workplace hygiene improved
  - 73% for men and 61% for women

Italy is famous for its food and drink sector and culture-related economic activity. Moreover, as a developed European economy with gross domestic product (GDP) standing at €1.6 trn in 2013, Italy is highly reliant on office workers to generate economic output. Each year, poor office hygiene makes Italian office workers take 1.6 days off sick and lost a combined total of 4.0 days while in the workplace. Consequently, poor office hygiene is estimated to cost the Italian economy some €13.9 bn due to poor office hygiene in 2013, roughly equivalent to €1,300 per office worker. This is because office workers tend to contribute more to the economy than other employees, so by causing office employees to fall sick or lost time in the office, poor office hygiene has a particularly large impact on the economy.

### Economic impact of hygiene practices in the workplace

There is clear evidence that Italian GDP is being suppressed by poor office hygiene. In 2013 in Italy, poor office hygiene is suppressing GDP in two ways: it causes office workers to go home sick and it causes them to lost time while in the office (perhaps queuing for a clean shower room or lavatory). As shown in Figure 1 (Italy), in 2013, substandard hygiene in offices is predicted to have reduced Italian GDP by approximately €13.9 bn, making GDP 0.9% lower that year than it might otherwise have been. Some €9.8 bn of that loss was due to poor office hygiene causing employees to lost time while at the office. The remaining €4.1 bn occurred because poor office hygiene caused office workers to go home sick.

*Figure 1 (Italy): GDP cost of poor office hygiene by cause (€ bn and % of GDP, 2013)*



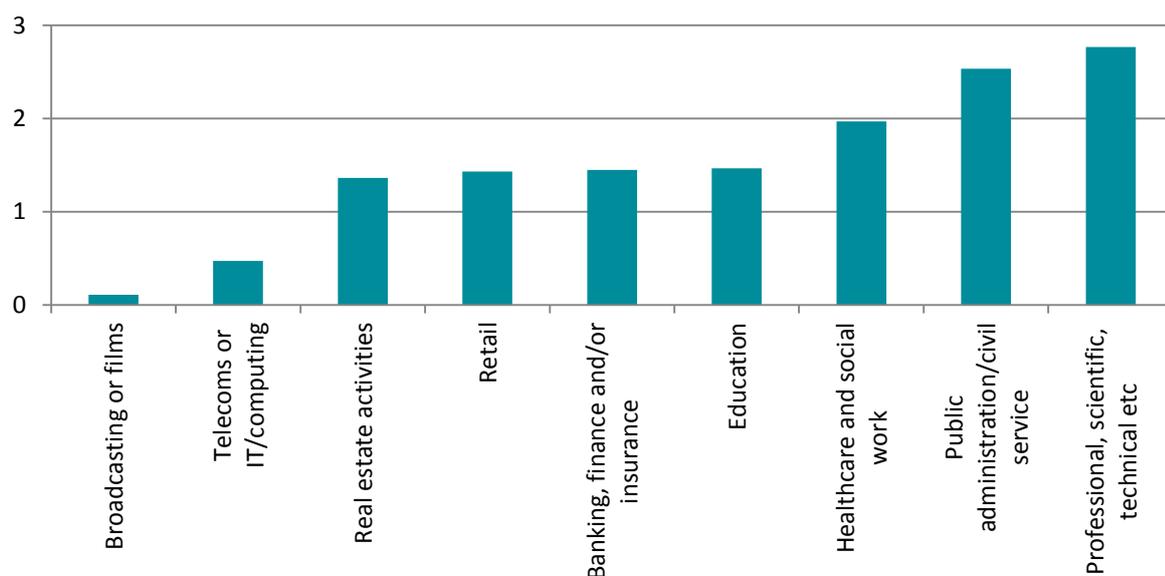
Source: *Opinion Matters, Italy office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

This €13.9 bn total GDP loss is equivalent to a sum large enough to provide a significant amount of public services. For example, if made available to the Italian Government, in 2013 it could have covered the purchase of 28 large new hospitals.<sup>6</sup> Within the private sector, this large GDP loss associated with poor office hygiene would be sufficient to pay the annual wages of 409,000 Italian office staff.

### Economic impact of hygiene practises by sector

Below the level of the entire Italian economy, a lack of cleanliness in offices has different economic impacts throughout the various economic sectors, as shown in Figure 2 (Italy). In 2013, these costs are relatively high in the large (i) professional services (ii) civil service and (iii) healthcare sectors, at €2.8bn, €2.5 bn and €2.0 bn, respectively. They are lower in the (i) telecoms and IT and (ii) broadcasting and films sectors, at €0.5 bn and €0.1 bn respectively.

Figure 2 (Italy): GDP costs of poor office hygiene by sector (€ bn, 2013)



Source: *Opinion Matters, Italy office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

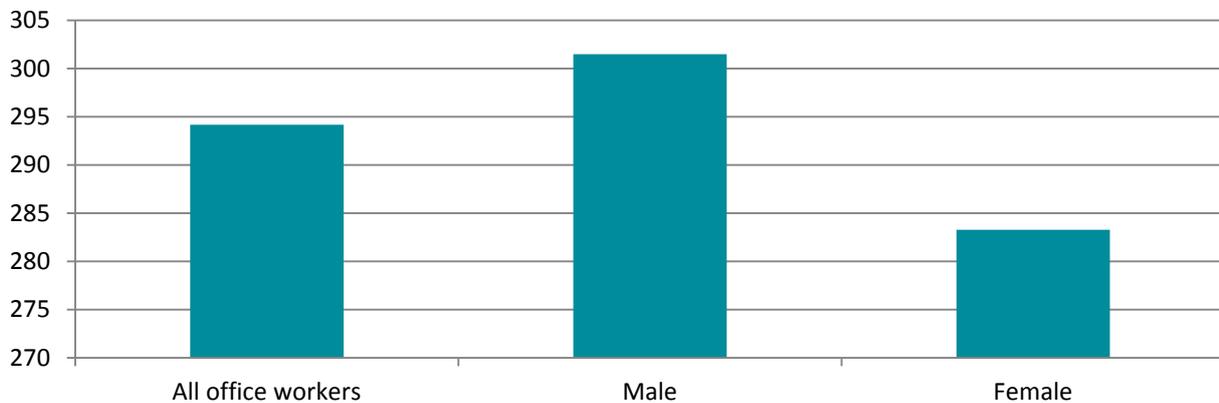
### Impact of hygiene on workplace wellbeing

<sup>6</sup> Estimates are based on the €500 million cost of the new hospital at Venice-Mestre. See: <http://www.architecturenewsplus.com/projects/697>

Down at the level of the individual office worker, the wellbeing of office staff in Italy is being weighed on by poor office hygiene. There is a human cost to unhygienic working environments: survey data suggests that poor office hygiene is making work less enjoyable for Italian employees. Italian office workers, who can expect to earn €33,900 in 2013 on average, would be willing to receive lower pay if office hygiene were improved. In Italy, the average office worker would be willing to forego €290 of income in 2013 if hygiene were better.

If workplace hygiene were to rise, some 68% of office workers in Italy expect their job satisfaction would improve. This estimate rises marginally to 73% for men and falls slightly to 61% for women. Of interest to Italian employers, if office hygiene were improved, office workers might be willing to accept lower pay, as shown in Figure 3 (Italy), which could help employers control staffing costs and boost profits (provided the costs of improving office hygiene are sufficiently low). In 2013, in return for cleaner offices, the average office worker in Italy would be willing to see his or her pay reduced by €290. Versus other developed countries, this represents a comparatively large amount of earnings, equivalent to 0.9% of annual income. This figure falls to €280 for women and rises slightly to €300 for male office employees.

*Figure 3 (Italy): Amount by which the typical office worker would be willing to have annual pay reduced if office hygiene were improved (€, 2013)*



*Source: Opinion Matters, Italy office hygiene questionnaire, Aug-Sep/2013; Cebr analysis*

## 6 The Netherlands findings

### Key figures snapshot

- Poor office hygiene is expected to have cost the Dutch economy €2.4.bn in 2013:
  - €1.9bn was due to poor office hygiene causing employees to lose time while at work.
  - €0.5bn came about because poor office hygiene was directly attributed to employee absenteeism
- Civil service, healthcare and the banking / finance sectors were hardest hit costing each sector €0.5bn, €0.5bn and €0.3bn, respectively
- 27% of Dutch office workers anticipate their satisfaction while at work would rise if workplace hygiene improved
  - 20% for men and 37% for women

The Netherlands is renowned for its trading heritage, with its highly open economy centred on the world-famous port of Rotterdam.<sup>7</sup> Beyond this trading heritage, the economy of the Netherlands – with an estimated gross domestic product (GDP) of €600 bn in 2013 – is highly developed and a great deal of its output is generated in offices. Each year, substandard hygiene in offices causes office workers in the Netherlands to take 0.4 days off sick and lost a combined total of 1.4 days while at work. Because office

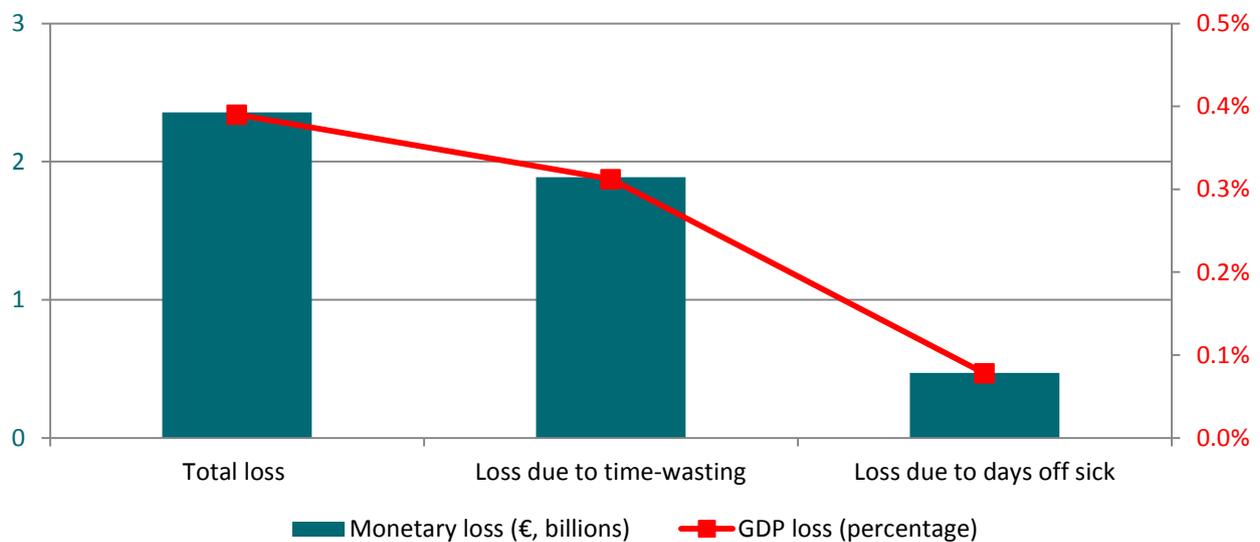
<sup>7</sup> International Chamber of Commerce, 2<sup>nd</sup> ed 2013 / spring 2013, “Open Markets Index”

workers tend to contribute more to the economy than other employees, by causing office employees to fall sick or lost time in the office, poor office hygiene is estimated to cost the economy of the Netherlands €2.4 bn in 2013, equating to €500 per office worker.

### Economic impact of hygiene practices in the workplace

Substandard office hygiene is also depressing GDP in the Netherlands. In 2013 in the Netherlands, poor hygiene in the office working environment is causing office workers to lost time while at work (perhaps having to clean the kitchen of lost food before it can be used) and making employees go home sick – both of which weigh on GDP. In 2013, substandard hygiene in offices is predicted to have reduced GDP in the Netherlands by €2.4 bn. Consequently, poor office hygiene is estimated to have reduced GDP in the Netherlands by 0.4% in 2013. Some €0.5 bn came about because poor office hygiene caused office workers to go home sick; the remaining €1.9 bn was due to poor office hygiene causing employees to lose time while at work.

Figure 1 (The Netherlands): GDP cost of poor office hygiene by cause (€ bn and % of GDP, 2013)



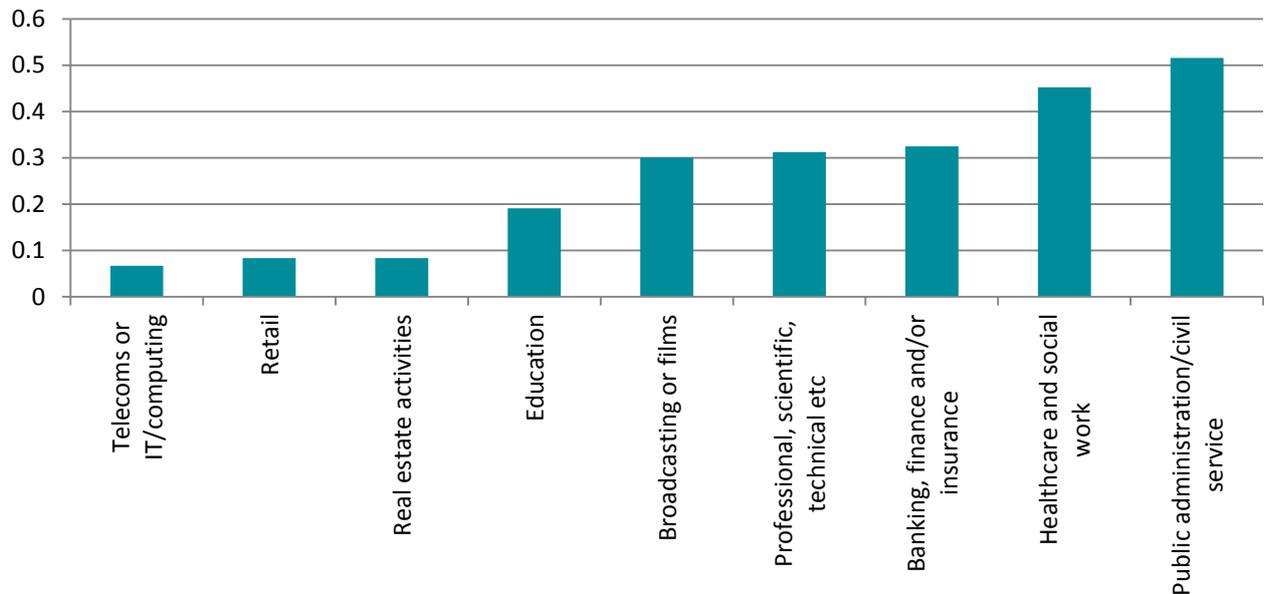
Source: *Opinion Matters, Netherlands office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

This €2.4 bn total GDP loss is equivalent to a sum substantial enough to support public services noticeably. For example, in The Netherlands in 2013, had an additional €2.4 bn been made available to the private sector, this would be sufficient to pay the annual wages of 61,000 office staff in the Netherlands.

### Economic impact of hygiene practises by sector

Below the level of the entire Netherlands economy, a lack of cleanliness in offices is having different economic impacts between sectors, as illustrated by Figure 2 (Netherlands). In 2013, these costs are relatively high in the large (i) civil service (ii) healthcare and (iii) banking and financial services sectors, at €0.5bn, €0.5 bn and €0.3bn, respectively. They are lower in the (i) retail (ii) telecoms and IT sectors, at €80 mn and €70 mn respectively.

Figure 2 (Netherlands): GDP costs of poor office hygiene by sector (€ bn, 2013)



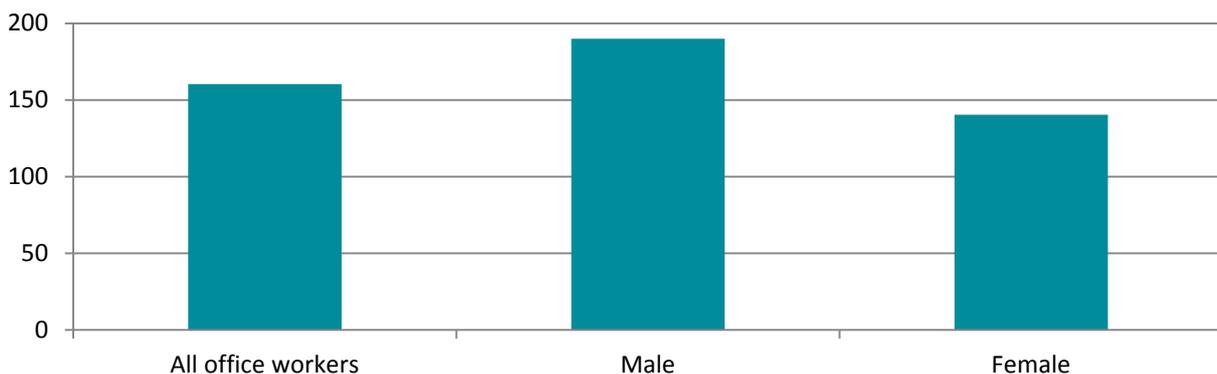
Source: *Opinion Matters, Netherlands office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

### Impact of hygiene on workplace wellbeing

Below the various sectors of the economy and on a more human level, poor office hygiene in the Netherlands is impacting employee wellbeing adversely. Of interest to employers, the average office worker in the Netherlands is expected to earn €38,300 in 2013. There is evidence that substandard hygiene in offices is making the workplace less enjoyable for employees in the Netherlands and that the typical office worker in the Netherlands would be willing to forego €160 of income in 2013 if hygiene were better.

Some 27% of office workers in the Netherlands predict that, if their workplace hygiene improved, their job satisfaction would consequently rise. This proportion is lower for women than for men, at 20% and 37% respectively. Of interest to employers, office workers would be happy to accept lower pay if office hygiene were improved, as shown in Figure 3 (Netherlands). This could help companies in the Netherlands reduce labour-related costs; thereby supporting profitability (provided the costs of improving office hygiene are sufficiently low). In 2013, in return for cleaner offices, the average office worker in the Netherlands would be willing to see his or her pay reduced by €160, equivalent to 0.2% of annual wages. Male office workers in the Netherlands would willingly suffer a €190 pay reduction in exchange for cleaner offices; this figure drops to €140 for women.

Figure 3 (Netherlands): Amount by which the typical office worker would be willing to have annual pay reduced if office hygiene were improved (€, 2013)



Source: *Opinion Matters, Netherlands office hygiene questionnaire, Aug-Sep/2013; Cebr analysis*

## 7 UK findings

### Key figures snapshot

- Poor office hygiene is expected to have cost the UK economy £13.7bn in 2013:
  - £9.5bn was due to poor office hygiene causing employees to lose time while at work.
  - £4.2bn came about because poor office hygiene was directly attributed to employee absenteeism
- Real Estate, healthcare and professional service sectors were hardest hit costing each sector £3.6bn, £2.2bn and £2.0bn, respectively
- 39% of UK office workers anticipate their satisfaction while at work would rise if workplace hygiene improved
  - 48% for men and 31% for women

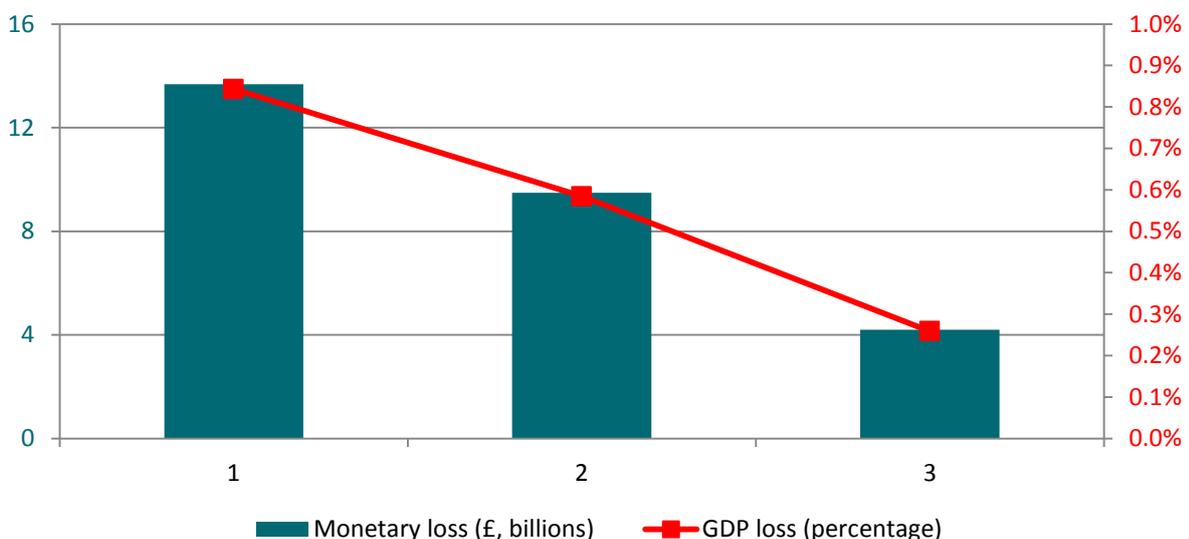
The UK's gross domestic product (GDP) is estimated at £1.6 trn in 2013. The nation's economy is dominated by the services sector in which office workers play a crucial role. Employers spend a large amount on wages, £29,700 for the typical UK office worker in 2013. Poor office hygiene causes UK office workers to take 1.1 days off sick each year and causes them to lose a combined total of 2.4 days while in the office each year.

### Economic impact of hygiene practices in the workplace

Office workers tend to contribute more to the economy than other types of worker; so by causing them to take time off sick or lost time at the office, substandard office hygiene is estimated to cost the UK economy some £13.7 bn in 2013, equivalent to £700 per office worker.

Poor office hygiene is weighing on the UK economy as a whole – having a measurable adverse impact on GDP. Poor office hygiene suppresses GDP by causing office workers to go home sick and causing them to lose time while in the office (perhaps queuing for a clean lavatory). Accounting for both these effects, in 2013, poor office hygiene is expected to have reduced UK GDP by £13.7 bn, making it 0.8% lower than it would have been – as illustrated in Figure 1 (UK). Some £4.2 bn of this impact was due to poor office hygiene making employees go home sick. The remaining £9.5 bn was due to it causing employees to lose time while at work.

Figure 1 (UK): GDP cost of poor office hygiene by cause (£ bn and % of GDP, 2013)



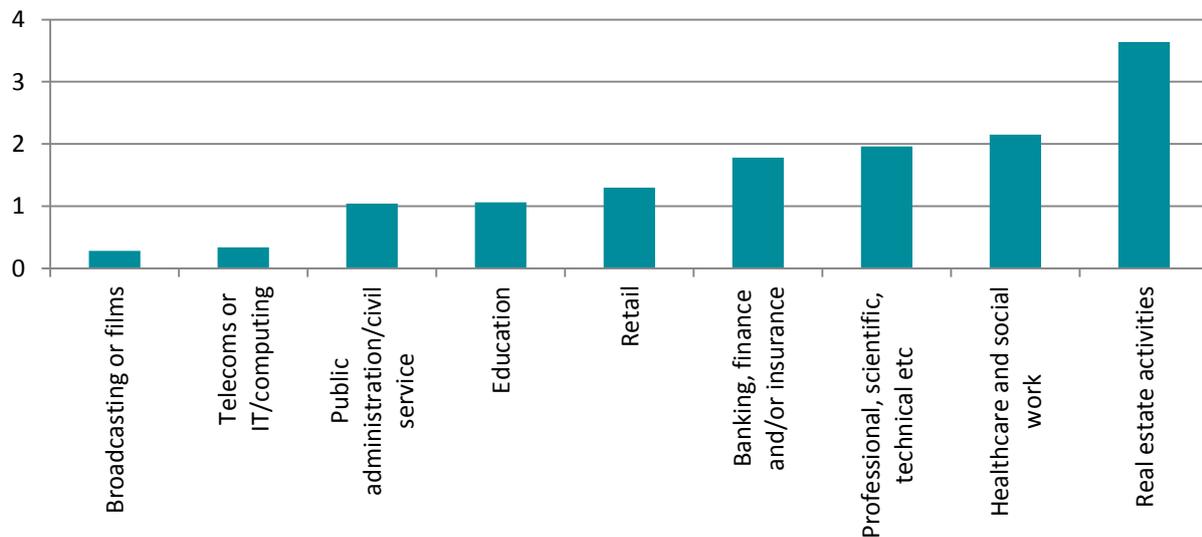
Source: Opinion Matters, UK office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis

This £13.7 bn total GDP loss is equivalent to a sum substantial enough to pay for a significant amount of healthcare services in the UK. If £13.7 bn extra had been made available to the UK Government in 2013, it could have paid for the construction of 25 major new hospitals.<sup>8</sup> Within the private sector, this large GDP loss associated with poor office hygiene would be sufficient to pay the annual wages of 460,000 British office staff.

### Economic impact of hygiene practises by sector

Burrowing down from the level of the entire UK economy, Figure 2 (UK) illustrates that the economic costs associated with poor office hygiene vary significantly by sector. In 2013, these costs are relatively high in the large (i) real estate, (ii) healthcare and (iii) professional services sectors, at £3.6 bn, £2.2 bn and £2.0 bn, respectively. They are lower in the (i) telecoms and IT and (ii) broadcasting and films sectors, at £0.3 bn in both cases.

Figure 2 (UK): GDP costs of poor office hygiene by sector (£bn, 2013)



Source: *Opinion Matters, UK office hygiene questionnaire, Aug-Sep/2013; EU KLEMS; Cebr analysis*

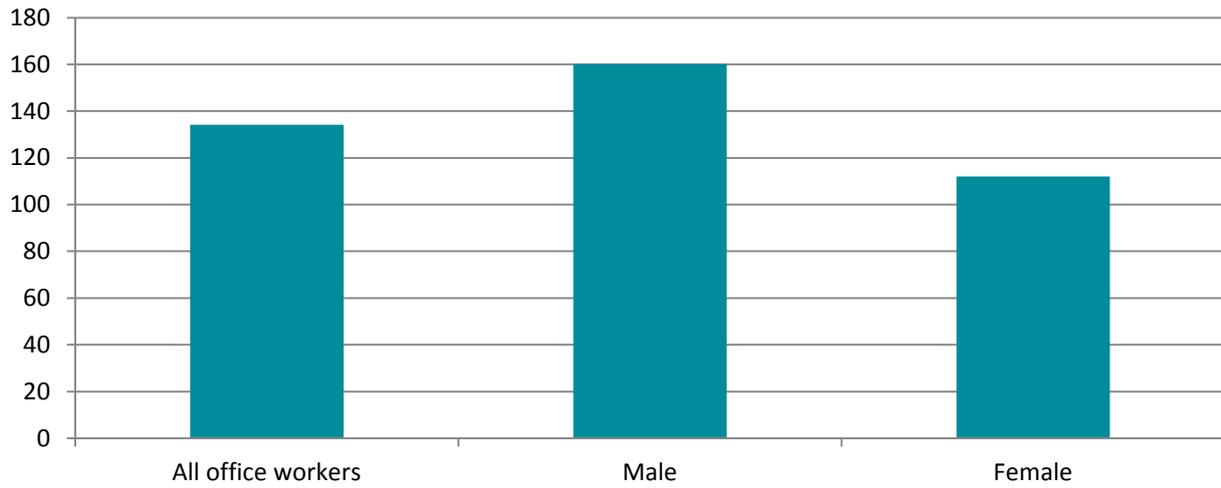
### Impact of hygiene on workplace wellbeing

Office hygiene can materially affect the wellbeing of employees in the workplace. By making the workplace less enjoyable for office workers, there is evidence that poor office hygiene is obliging UK office workers to pay higher wages to office staff. The typical office worker in the UK would be willing to take a pay reduction of £130 *per annum* if hygiene in the office were of a higher standard.

The research shows some 39% of UK office workers agree that their level of job satisfaction would be higher if workplace hygiene were better. This proportion rises to 48% amongst male employees and falls to 31% amongst female employees. Employers might have scope to lower their employee wage burden, and thereby increase profitability, if office hygiene were improved (and if the cost of improving office hygiene were sufficiently low). Figure 3 (UK) shows that UK office workers would be willing to accept lower wages if office hygiene were improved, suggesting that poor hygiene could be bringing about higher business wage costs. If office hygiene were of a higher standard, the typical male UK office worker would be willing to take a pay cut of £160 each year, versus £110 for the typical female employee. Overall, the typical employee would be willing to take a pay cut of £130 or 0.5% if office hygiene improved.

<sup>8</sup> Estimates are based on the £545 million construction costs of the Queen Elizabeth Hospital in Birmingham. See: <http://www.uhb.nhs.uk/about-the-trust.htm>

Figure 3 (UK): Amount by which the typical office worker would be willing to have annual pay reduced if office hygiene were improved (£, 2013)



Source: *Opinion Matters, UK office hygiene questionnaire, Aug-Sep/2013; Cebr analysis*

## Conclusion and recommendations for establishing high standards of hygiene

The report was developed to understand the financial value hygiene practices can have to any business, regardless of size, industry or geography and to identify the opportunity for businesses to improve their financial performance through improved office hygiene, demonstrating the ROI.

The numbers are significant— whether it relates to time lost in the office, staff absenteeism or employee morale, the impact is clear and shows the need for behavioural change in the workplace. In the case of pandemics, such as Norovirus, where the disease which can be easily transmitted between humans these numbers can be even higher.

A substantial number of workers are not doing all they can to minimise the risk of catching flu and other seasonal illnesses. It's clear to see the effect this is having on businesses and not just on their bottom line. Whether it's their own personal practices or how their colleagues around the office behave, hygiene standards have an important part to play in any office environment.

One of the most basic hygiene measures is hand washing; logically it is via the hands that most germs are spread because we use them for so many different purposes. Many employees are sensible about hand hygiene, but our research has shown more than one in every four workers admits that they don't wash their hands every time they go to the washroom. Some might use the excuse that they are not actually using the lavatory - they've gone in to change or apply make-up –however bacteria can be picked up and spread on taps and door handles so the requirement to wash hands on every visit remains.

But it shouldn't just be about the employee. Employers have a major role to play and education is paramount in this. There's no substitute for an ongoing education plan; for one thing many offices are international and standards of hygiene vary around the world so businesses should set clear hygiene baselines to which their employees should adhere. These should be supported with practical tips and reminders on washroom walls and doors of the hygiene procedures to follow – not just because an employee might not know what to do, but because busy office workers with heads full of figures and reports often have their minds far from the requirement to keep clean.

Of course it's not just the risks of washrooms that employees must be educated about; the average desk has four hundred times more bacteria than a typical toilet seat and hands contaminated with bacteria can transfer it them on to seven different surfaces, where they can live for up to forty-eight hours.

Clearly there needs to be well-maintained facilities and organisations are urged to ensure they are supplying at least adequate levels of hygiene consumables. For example, if there isn't a working dryer or hand towel then the washroom visitor won't wash their hands as thoroughly since they won't be able to dry them, or will not wash their hands at all. It sound like basic principles, but these can stretch a long way to improving the hygiene conditions and the knock on effect is profound.

The report highlights the economic and behavioural impact hygiene practices can have in the office, and demonstrates that good office hygiene standards can have a huge impact to businesses. Here are our top tips on what to look out for in the office and how to improve hygiene across the organisation:

- (1) **Washrooms:** Risk hotspots in the washroom include toilets, flush handles and cubicle handles. Salmonella and Campylobacter can be found in these areas, both cause Gastroenteritis. The germs are transferred from surface to hand. The spread of infection can be minimised with surface and flush sanitisers and toilet cleaners.

- (2) Reception / entrance area:** Door handles are a risk hotspot in reception and entrance areas, housing bacteria which can be transferred by surface to hand and from hand to hand. It can cause skin infections, food poisoning and respiratory diseases. Hand and surface sanitisers will kill germs and help prevent the spread of infection.
- (3) Corridors / common areas:** High footfall makes corridors and common areas germ hotspots. Scenting products will help mask malodours that might be derived from malodour producing bacteria.
- (4) Desks / meeting rooms:** Door handles and desk surfaces are risk hotspots in meeting rooms, housing Rhinovirus. It is transferred from surface to hands and causes the Common Cold. Surface sanitisers from Initial can help minimise the spread of germs.
- (5) Kitchen area:** Food preparation surfaces in kitchens can be home to pathenogenic strains of E. coli. It can be transmitted from surface to hand, hand to mouth or by infected food and can cause Gastroenteritis and urinary tract infections. Good hand washing and drying products can help to minimise the risk of infection.

For more information about Initial visit [www.initial.co.uk](http://www.initial.co.uk)

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**About Initial Hygiene**

Initial Hygiene is a global leader in hygiene services operating in over 45 countries across the world including the major economies of Europe, North America, Asia Pacific and Africa. It provides innovative and environmentally responsible washroom services solutions to large and small organisations across a range of business sectors including public administrations and schools, food and drink manufacturing, hospitality and leisure, medical and paramedical, construction, retail, services and transportation.

The range of Initial Hygiene's services and supplies includes:

- Hand washing and drying products and services
- Feminine hygiene disposal units and services
- Products for washroom, urinal and toilet hygiene and cleaning

Part of  
**Rentokil<sup>®</sup>**  
**Initial**