

## The results at a glance

Compared to virgin paper, cotton towel rolls

- ✓ result in up to **95% less waste**
- ✓ require up to **48% less energy**
- ✓ have an up to **29% lower global warming potential.**

Compared to recycled paper, cotton towel rolls

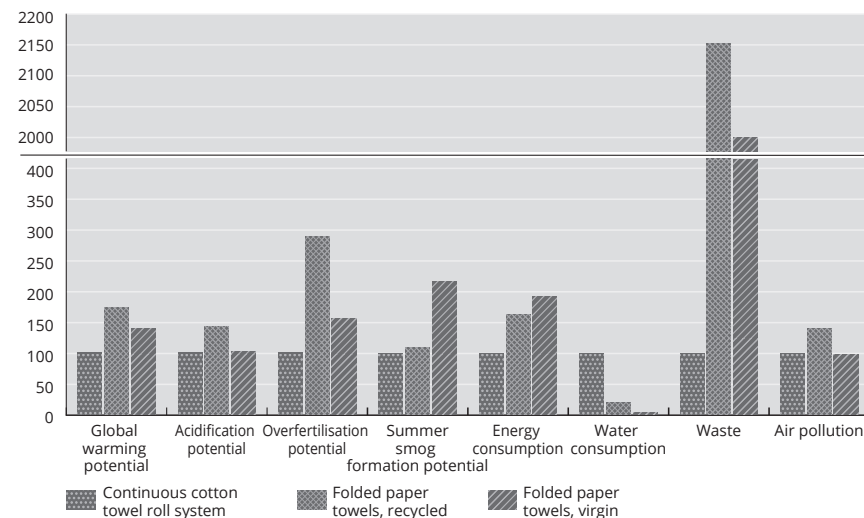
- ✓ result in up to **95.4% less waste**
- ✓ require up to **40% less energy**
- ✓ have an up to **43% lower global warming potential.**

The comparisons were made on the basis of European-wide data focusing on the volume of waste produced, the energy demand and global warming potential as well as air pollution, summer smog formation, water consumption and the acidification and overfertilisation of soils. The results relate in each case to 10,000 instances of hand drying, which corresponds to 93 washing cycles for a cotton towel roll and the consumption of 93.3 kg of recycled paper and 67.8 kg of virgin paper.



### Environmental balance evaluation of textiles and paper: overview of categories (%)

Per 10,000 hand dryings



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The environmentally friendly approach to hand drying.  
Sustainability study into cotton towels and paper.



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Textil Service e.V.

## Scientifically proven: Cotton towel rolls are beneficial for the environment

### Cotton towel rolls come out on top in study

The environmental impact of cotton towel rolls, virgin paper and recycled paper was investigated in a scientific study\* commissioned by the Textile Service Trade Association (WIRTEX) and the European Textile Services Association (ETSAs). Waste volumes, energy consumption, greenhouse effect and water consumption were considered amongst other factors. The results speak for themselves: Cotton towels beat virgin paper in six out of eight categories and recycled paper in seven from eight categories. The entire life cycle was taken into account, from production through to disposal of the materials.

### No costs for waste disposal with cotton towels

“The latest study confirms the results of the preceding European study from 2006. In terms of waste in particular, cotton towel rolls are still the clear frontrunner. A decisive advantage for washroom operators: There are no disposal costs whatsoever when cotton towels are used.”

Dr. Andreas Marek, Managing Director WIRTEX

### Neutral performance and review

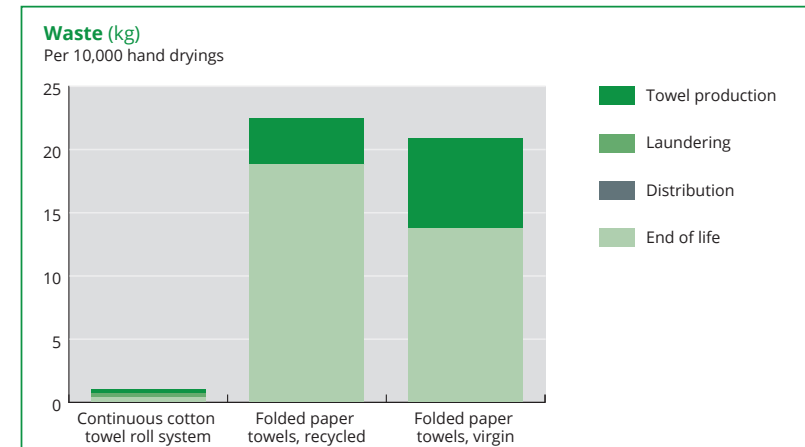
The comparative study was performed by the sustainability experts at thinkstep AG. The critical review was performed by an independent panel of experts supervised by DEKRA.

\* Source: LCA of mechanical hand-drying systems: A comparison of cotton and paper towels, thinkstep 2016.

## The results in detail

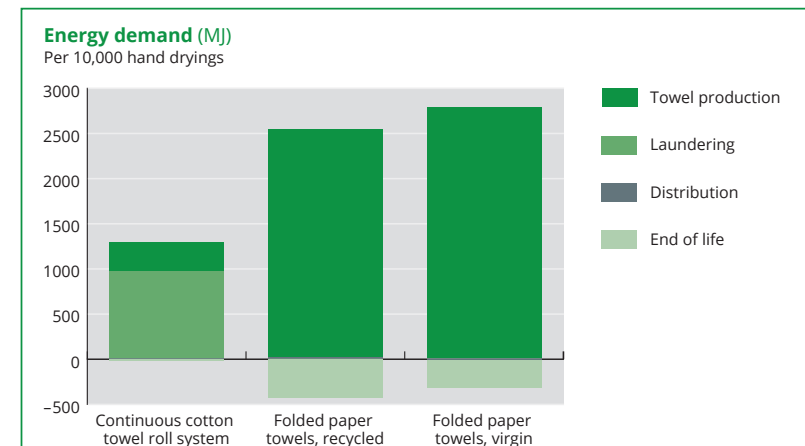
### Waste – 1:0 for cotton towels

Cotton towel rolls produce an impressive 95.4% less waste compared to recycled paper. And in contrast to virgin paper, it is 95% less. This saves customers money and is also a major bonus for the environment.



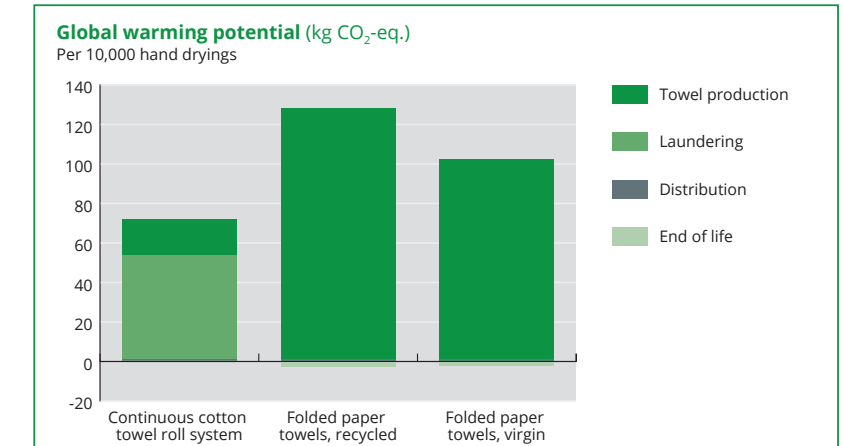
### Energy consumption – 2:0 for cotton towels

Drying hands with cotton towels consumes 48% less energy compared with virgin paper and 40% less energy compared with recycled paper. The energy-intensive paper production process is the main contributing factor here.



### Global warming potential – 3:0 for cotton towels

In terms of the greenhouse effect too, cotton cuts a finer figure: Its global warming potential is around 43% lower than that of recycled paper and 29% lower than that of virgin paper.



### Other categories under consideration – 7:1 for cotton towels

Cotton towels also came out on top in other areas: air pollution, summer smog formation and the acidification and overfertilisation of soils are all less pronounced compared to paper. It was only with regard to water consumption that paper leads the field. Ultimately, sufficient water is required to grow the cotton seed to produce the cotton.

