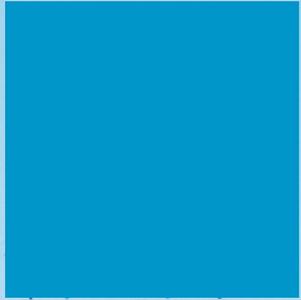




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CleanO<sub>3</sub>mat

AUTOMATIC DISINFECTION OF BATHROOMS & PUBLIC TOILETS

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The Dinies Technologies GmbH company is a medium-sized, innovative family-owned company of UV technology and electronics manufacturing, which does not shy away from investing in new, revolutionary methods and technologies.



# COMPETENT RELIABLE INNOVATIVE

Since our foundation in 1979, it has been important to us to supply our customers with everything from a single source. In 2005, the two main pillars, electronic production UV technology, were further expanded.

„ IN PARTICULAR, NEW TECHNOLOGIES AND FIELDS OF APPLICATION IN UV-TECHNOLOGY OFFER GOOD BASIS FOR AN INNOVATIVE COMPANY POLICY.“

Dinies Technologies GmbH is DIN EN ISO 9001 certified and is constantly monitored and audited by its customers to ensure its effectiveness, to meet their high quality requirements.

In addition, internal audits carried out by external auditors guarantee a high standard of quality and efficiency in quality management.

# RESISTANT GERMS

In a project with the HFU Furthwangen, a **pathogenic germ load of 44%** was observed in patients' rooms after regular wipe disinfection.

This is, in part, a consequence of the high cost-pressure placed on hospitals and cleaning staff.

Future patients are at a **high risk of infection**.

HIGH  
INFECTION  
RISK  
FOR FUTURE  
PATIENTS!





AUTOMATIC  
**BATHROOM  
DISINFECTION**  
ELIMINATES  
**UP TO 100%**  
OF PATHOGENIC GERMS  
AFTER EVERY USE

# 1 CleanO<sub>3</sub>mat

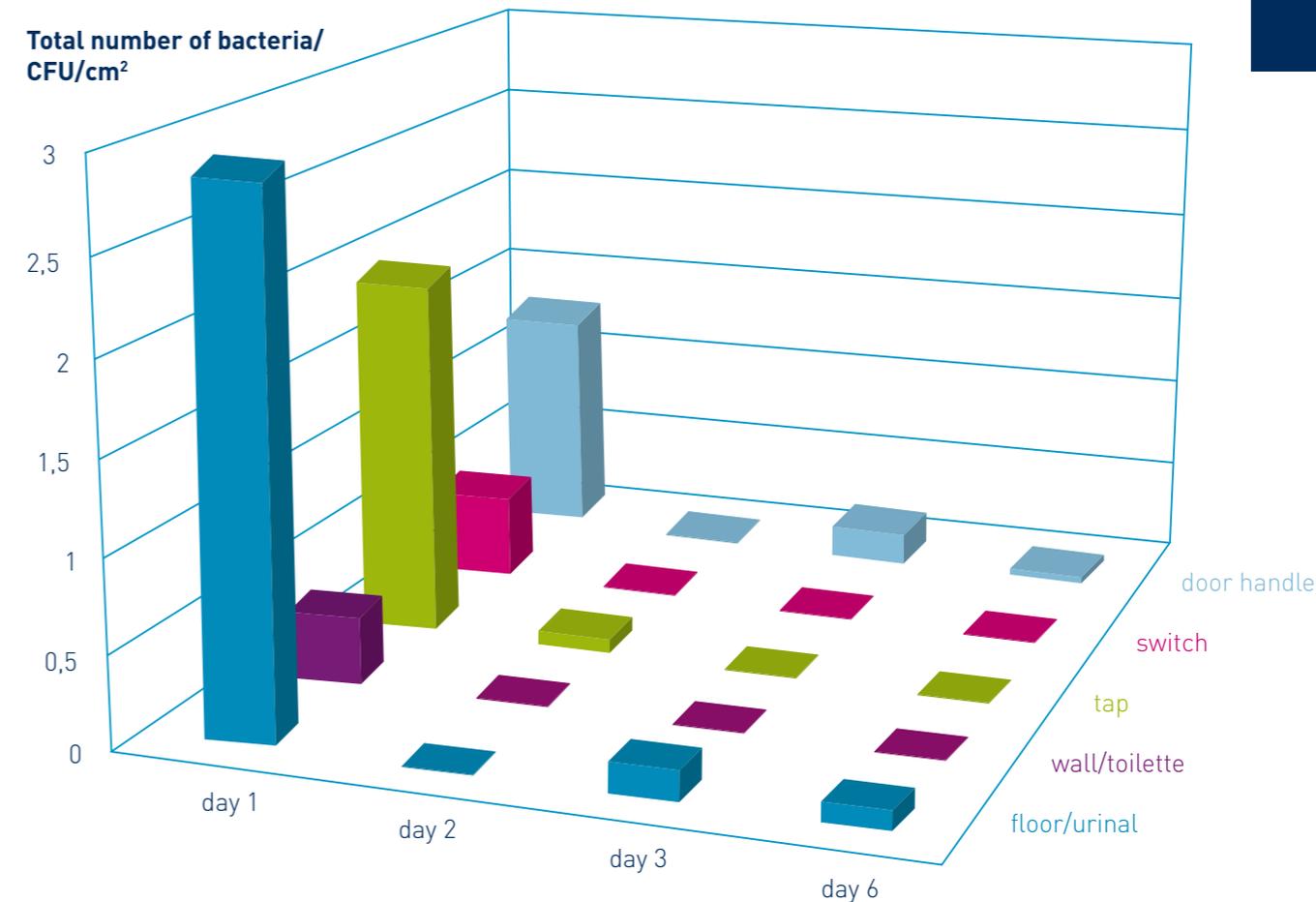
For the first time, CleanO<sub>3</sub>mat combines the effects of UV-C light and ozone: The combination of both ensures a disinfection of the surfaces up to 100%. In addition the ozone neutralises unpleasant smells in the rooms, which makes the situation more comfortable for the patients.

- Automatic elimination of dangerous germs and bacteria without creating extra work
- Relief for hygiene specialists in the hospital
- Energy consumption similar to conventional lighting
- Lamps are easy to change
- Always compliant with the radiation limits prescribed by legislation
- Dimensions: 134x117x590mm | 2,8kg incl. light sources
- Rated voltage: 230V/50Hz | Rated power: 30W



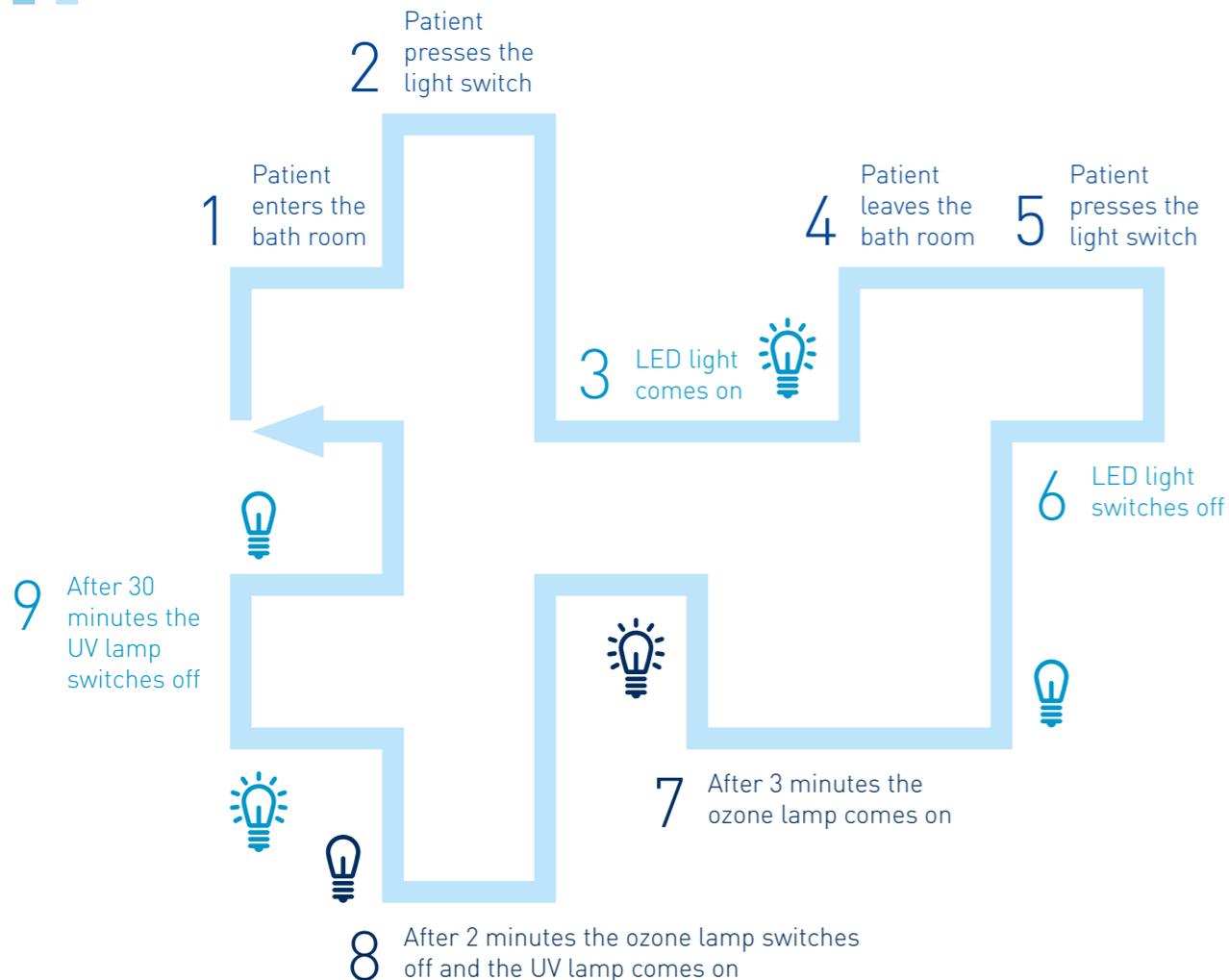
# MEASUREMENTS

Total number of bacteria/  
CFU/cm<sup>2</sup>

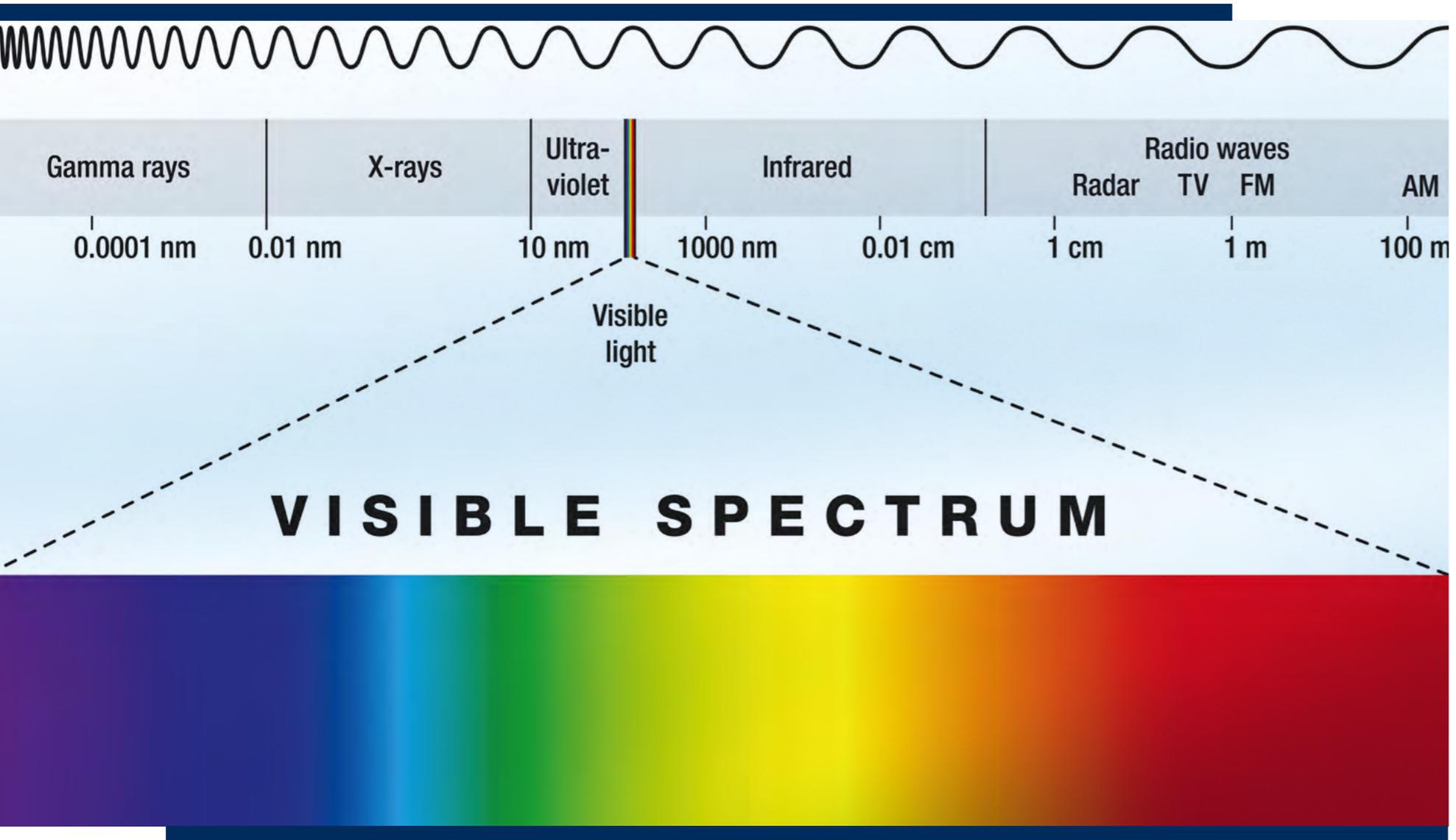


The long-term effectiveness of the CleanO<sub>3</sub> mat has been confirmed in a field test under real conditions: Before the first disinfection cycle the numbers of bacteria were measured at various locations in a toilet. This showed comparably high levels. The 35-minute disinfection cycle then always started whenever the user of the toilet

switched off the CleanO<sub>3</sub> mat's light. Over the next few days there was a sustained drop in the number of bacteria present to values up to 0 CFU. These values were still reached when the usual procedure of wiping down surfaces was stopped.



# 2 PROCESS



# VISIBLE SPECTRUM

## UV-C LIGHT

Effective hygiene with UV-C! Microorganisms exposed to natural sunlight will be killed in a natural way. According to this principle from nature, artificial UV-C light was developed many years ago.

UV-C light is short-wave radiation in the range of 280-100nm which is not visible to the human eye. In the area of 254nm, UV-C light has a strong germicidal effect, so even dangerous germs, bacteria, viruses and mould spores will be destroyed within a short time without the use of chemicals.

The DNA of the microorganisms is changed in the core so that reproduction is no longer possible. This has the consequence that the microorganisms die. The ultraviolet light is therefore an economical and environmentally friendly alternative to chemical disinfection.



Ozone is a highly effective disinfectant for the sustainable elimination of unpleasant smells and hazardous microorganisms.

Derived from processes in nature UV-C light is created in a controlled way, which in conjunction with oxygen produces ozone. Odour molecules are broken down and removed completely. Microorganisms present are destroyed by the treatment in the core.

A great advantage of ozone treatment is that odour neutralization and disinfection is carried out without the use of chemicals. Any residual ozone decomposes back to oxygen.

The bactericidal effect of ozone is reported in literature at 1.5 to 4.9ppm.



# 3 OZONE

