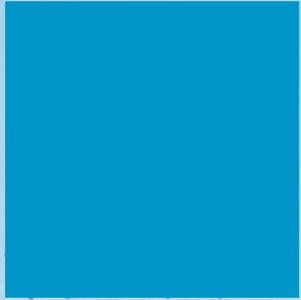




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CleanO<sub>3</sub>mat

AUTOMATIC DISINFECTION OF BATH ROOMS IN PATIENT ROOMS

DINIES TECHNOLOGIES GMBH

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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  
**BATH ROOM  
DISINFECTION**  
ELIMINATES  
**UP TO 100%**  
OF PATHOGENIC GERMS  
AFTER EVERY USE

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

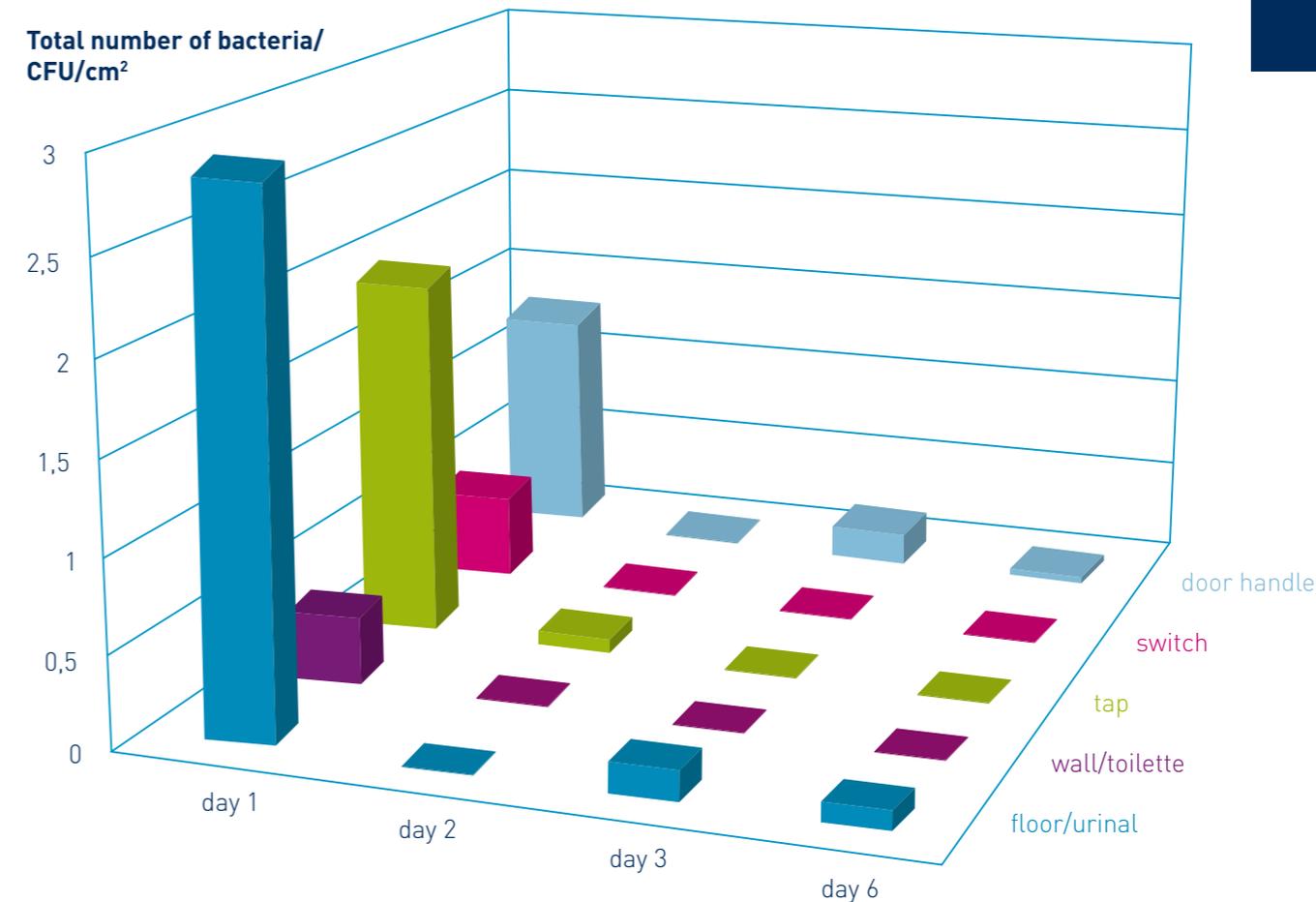
For the first time, CleanO<sub>3</sub>mat combines the effects of UVC radiation and ozone: The combination of both ensures a disinfection of the surfaces up to 100%. In addition the ozone neutralises unpleasant smells in the rooms, which makes the situation more comfortable for the patients.

- Automatic elimination of dangerous germs and bacteria without creating extra work
- Relieves the strain on hygiene specialists in the hospital
- 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
- Nominal voltage: 230V/50Hz | nominal power: 30W



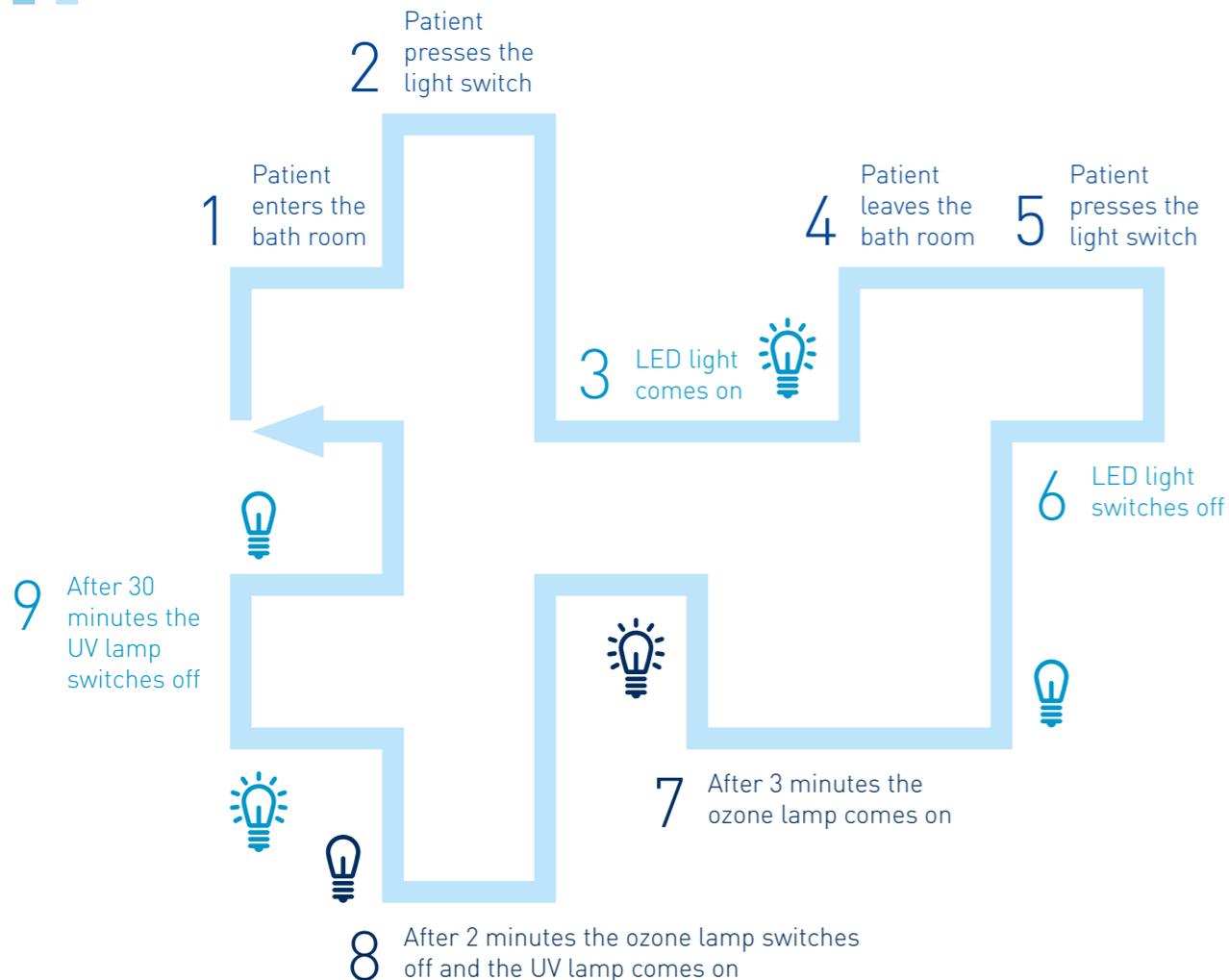
# MEASUREMENTS

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

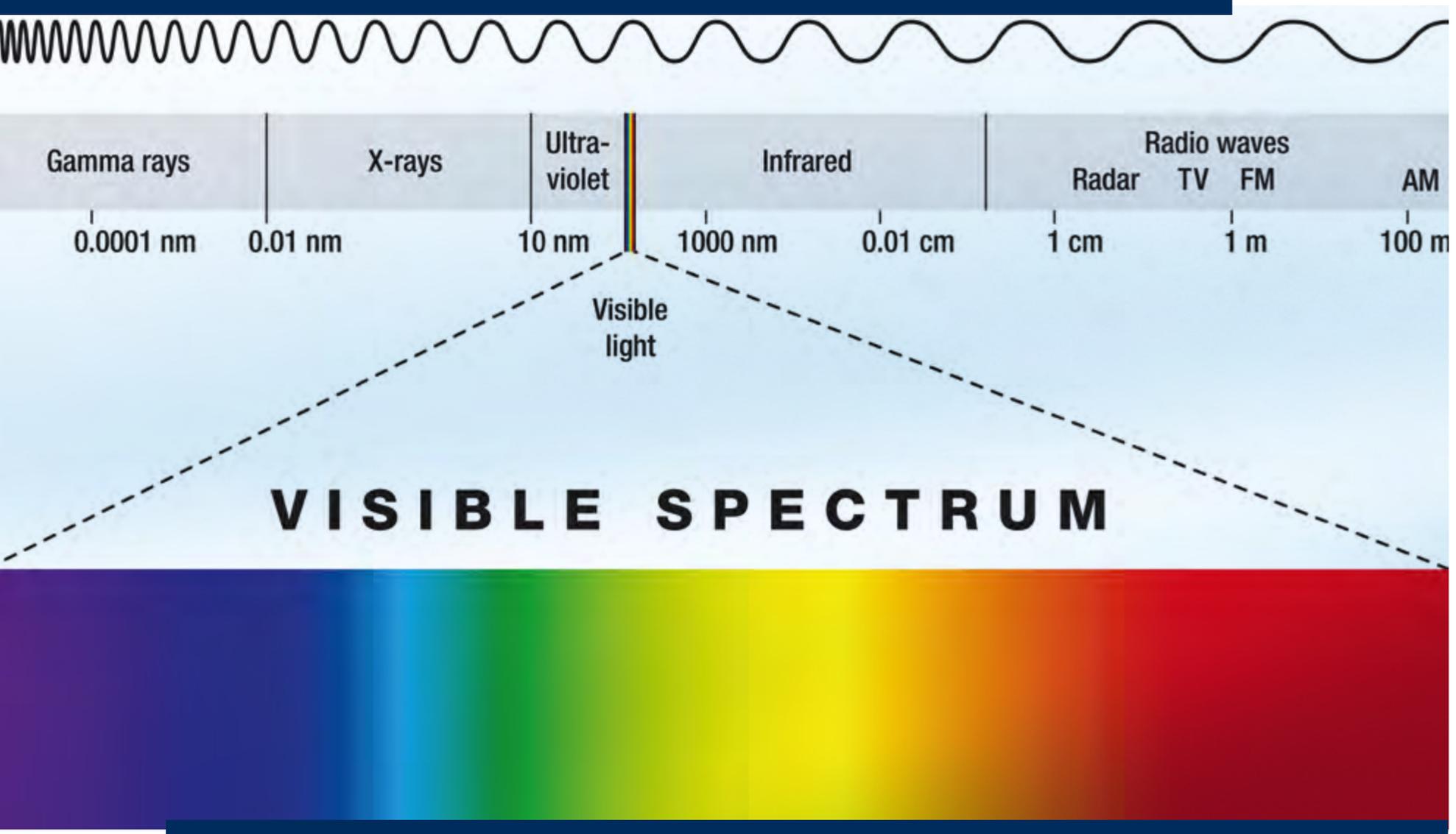


The long-term effectiveness of the CleanO<sub>3</sub> mat has been confirmed in a field test under real conditions: Before the first disinfection cycle the numbers of bacteria were measured at various locations in a toilet. This showed comparably high levels. The 35-minute disinfection cycle then always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



## UV- RADIATION

Highly effective hygiene with UVC!  
Microorganisms are killed off naturally if they are exposed to natural sunlight. Artificial UVC that uses this natural principle was developed many years ago.

UVC rays are short-wave rays in the range of 280-100 nm that are invisible to the human eye. UVC rays in the range of 254 nm have a very strong germicidal impact, so that even dangerous germs, bacteria, viruses, moulds etc. are quickly exterminated. And all this without the use of chemicals.

The DNA of the microorganisms is modified in the nucleus so that reproduction is no longer possible. As a result, the microorganisms eventually cease to exist. Ultraviolet radiation is therefore an economical and environmentally friendly alternative to chemical disinfection.

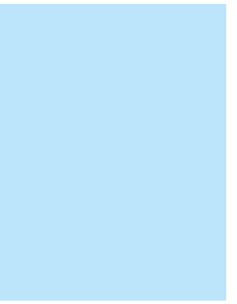


Ozone is an extremely effective disinfectant for sustainable elimination of unpleasant odors and health-threatening microorganisms.

Derived from natural processes, UVC rays are produced in a controlled manner, which generate ozone in combination with atmospheric oxygen. Odor molecules are broken down and completely removed. This process destroys the existing microorganism at its nucleus.

A major advantage of ozone treatment is that odor neutralization and disinfection takes place without the use of chemicals. Remaining residual ozone breaks down into oxygen again.

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



# 3 OZONE

