

Micro  
pollutants

Complex  
pollutions

Toxic  
effects

vigiWater™  
services

## WATER QUALITY & IMPACT ON LIVING MATERIAL



natural environments



resources & drinking water



wastewaters & processes

Water (*natural environment, resources, waste*) more and more contains substances that even in minute quantities display disrupting effects on biological functions.

In order to take better informed, more efficient operational decisions, water industrials need to assess the impact of pollution on living biological models.

To address these needs, VigiCell developed **VIGIWATER™**, a novel water quality evaluation service.

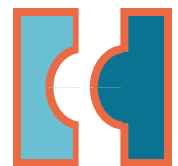
**VIGIWATER™** allows investigation of the impact of a water sample on a panel of living organisms and thus evaluate its adverse potential

Of note, the bioassays and test organisms have been selected with special regards to the European Water Framework Directive's requirements in emerging micro-pollutant monitoring.

TARGETED



SIMPLE



USEFUL



## A novel panel of bioassays dedicated to water quality

### 1 GROUP OF TEST TO EVALUATE GLOBAL IMPACT

1

#### General Toxicity

Toxicity assessment on a panel of biological models : algae, bacteria, fungi and human cells

2

#### Endocrine Disruptors

Effects on steroid and thyroid hormonal systems

3

#### DNA damage

Genotoxicity on prokaryotes (bacteria) and eukaryotes (yeasts and human cells)

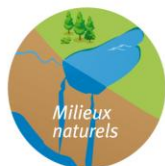
4

#### Cellular Stress

Reaction to metals, aromatic hydrocarbons (PAH, dioxins), oxidative stress, photosynthesis inhibition,...

## Simple approach and convenient readouts

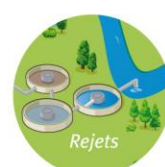
Natural environments



Resources



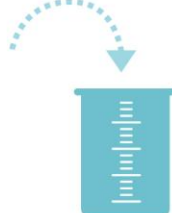
Wastewaters



1

#### Sampling

(one-off, averaged)



Case study or extended monitoring

2

#### Laboratory analysis



Toxic potential evaluation

3

#### Interpretation and presentation of results



Each result is translated into a colour-coded response index (from 0: no adverse effect observed to 4: marked effect).



## VIGIWATER® services brought to you by VigiCell

VigiCell is a laboratory specialized in using biological material as toxicity-detection tools.

VigiCell has applied its expertise to tackling health & environment challenges since 1999.