Electronic nose (e-nose) sniffs out smells throughout the port



The two hundred and fifty electronic noses (e-noses) in Rijnmond register all changes in the air immediately, enabling businesses, municipal authorities and the Environmental Agency to respond to unpleasant gases before they pose a problem to anyone.



CONTROL ROOM Change in the air composition.

None Slight Major

(W)E-NOSE

There are currently 250 electronic noses in the port. A unique partnership involving the Port of Rotterdam Authority, businesses, municipal authorities and local residents. Hence the name 'We-nose network'. www.portofrotterdam.com

MOBILE E-NOSE

The mobile e-nose is ideal for investigating smells in a specific area by car or in a harbour patrol boat.



Companies can have their own e-nose on site.



1 DETECTING SMELLS

F-nnse

Some substances are toxic, dangerous or unpleasant. 'The sensors in the e-nose take measurements of odorous and odourless gas compounds in the vicinity.'

COMPARING SMELLS

The measured gas compound is compared with the chemical 'fingerprints' of known compounds recorded in a central database.

Database

Approx 4 metres

3 CHANGING SMELLS

The sensor registers changes. These are flagged up in the Environmental Agency's control rooms and at the businesses in the vicinity. The Agency investigates the report, which may mean visiting the site. If necessary, a so-called environmental report is issued to inform local residents.

4 COMPANIES

Companies also have their own e-noses on site. This enables them to take measures early on, such as adapting production processes.