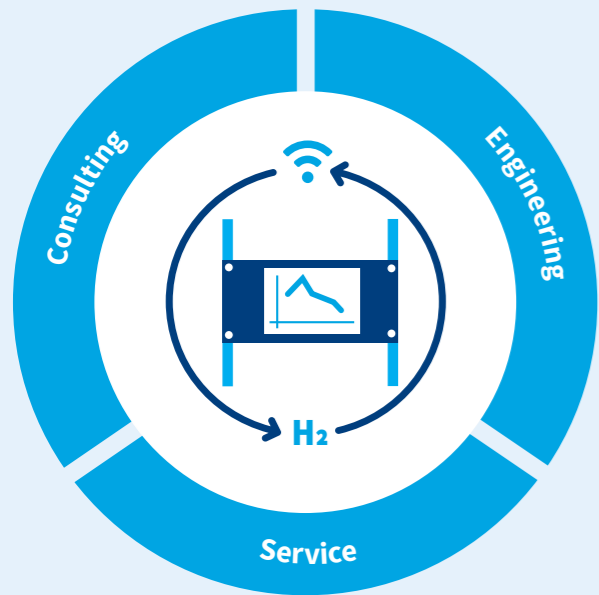
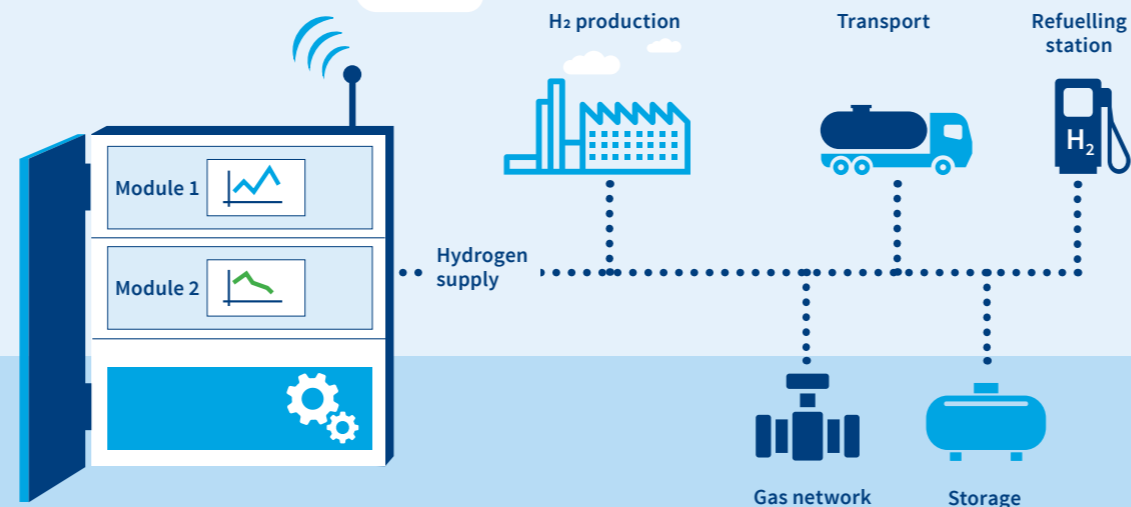


Our services for H₂ quality measurement and analytics

Measurement of the hydrogen quality according to DIN EN 17124,



H₂ quality measurement and analytics



Mobile data access



Real-time display of the measurement results

- › Graphical visualisation in the web portal
 - › Automatic logging of the measurement results
 - › Individually adjustable alarms
- Mobile data access

Standard-related detection limits





















| Substances | DIN EN 17124 (ppm) |
|---|--------------------|
| NH ₃ | 0,1 |
| Total sulphur | 0,004 |
| Formic acid | 0,2 |
| Formaldehyde | 0,2 |
| Halogens | 0,05 |
| H ₂ O | 5,0 |
| Complex HC, Oils and greases | 2,0 |
| HC | 2,0 |
| O ₂ | 5,0 |
| CO | 0,2 |
| CO ₂ | 2,0 |
| CH ₄ | 100 |
| He | 300 |
| N ₂ | 300 |
| Argon | 300 |
| Other substances and details on request | |








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EMCEL provides you with advice at every step of the H₂ quality measurement and analytics – Our services in detail


| BASICS | | PLANNING | ACQUISITION | MEASUREMENT PREPARATIONS | MEASUREMENT OPERATION |
|---|---|----------|---|--------------------------|-----------------------|
|  Consulting | | | | | |
|  Introduction to the methods of quality measurement | | |  Market analysis of measuring devices and methods | | |
|  Initial consultation |  Development of systematic measurement campaigns | |  Selection of suitable measuring sites for measuring quality | | |
|  What does H ₂ quality mean? |  Risk assessment on the effects of impurities | | | | |
|  Standards and committee work |  Definition of impurities to be measured | | | | |
|  Engineering | | | | | |
|  Development of measuring systems suitable for use outdoors (also for mobile use) | | | | | |
|  Support in the development of measuring devices | | | | | |
|  Support in the coupling of hydrogen | | | | | |
|  Assistance with plant optimisation | | | | | |
|  Service | | | | | |
|  Installation of measuring systems on site | | | | | |
|  Implementation of measurement campaigns according to DIN EN 17124 and further | | | | | |
|  H ₂ quality measurements | | | | | |
|  Online data provision | | | | | |

Customers:


-  H₂ manufacturers
-  H₂ suppliers
-  Plant operators
-  Component manufacturers
-  Plant manufacturers



CONSULTING
H₂ quality
Measuring methods



ENGINEERING
Measuring systems
H₂ plant optimisation



SERVICE
Measuring operation
Analytics