# WEB TECHNOLOGIES DEVELOPING SUITABLE APPLICATIONS

## FROM THE WEB APP TO THE IOT PLATFORM

Web technologies are one of the most modern variants of HMI development and enable the production of executable applications in the browser. We are happy to support you with our wide-ranging expertise in control, HMI, and web in the selection and engineering for applications – from the web app to the complete IoT platform.

DEVELOPMENT

#### How do you live up to responsive design?

The complexity of projects and user interface requirements increases to the same extent as the number of interfaces.

Customers need a complex interface that cannot be covered by HMI technology that was previously common.

The requirements are changing. For example, today's users have to switch workspaces more often, which increases the demands on usability and responsive design.

Independent platforms are a big advantage. Web technologies are used here in the modular system to connect control code to the HMI, cloud, and database.



### Individual solutions need experience

To use web technologies effectively, you need extensive experience in control, HMI, and basic technologies such as HTML, CSS, JavaScript, and AngularX.

Experience in the ecosystem of modern web frameworks such as Bootstrap or React, which significantly accelerate development, is also essential.

Our consultants offer you their expertise from numerous projects to jointly develop an individual solution based on open source that can be adapted to the existing hardware and software.



## WEB TECHNOLOGIES DEVELOPING SUITABLE APPLICATIONS



### APPROACH

#### Find out exactly what you need

A key success factor in the introduction of web technologies is a precise benchmarking of the available technologies.

Which technologies offer the greatest benefit for your company? Afterwards, it is an agile and cross-disciplinary development in close coordination with you and your team.

Our consulting includes:

- HMI for machine operation and configuration
- Dashboards for machine/production data
- Ordering systems
- Surveillance systems
- Resource management/planning



"Data is the currency of the future. Web technologies allow the evaluation and visualization of these data treasures, which opens up new business areas and strengthens customer loyalty."

Karl-Heinz Wind Member of Management 🖂 wind@itq.de

## SERVICES

We offer you!

- Conceptual design with support during implementation
- Engineering to the implementation of an executable tool including ongoing support
- Support regarding the licensing of open source libraries
- State-of-the-art quality assurance right from the start: Continuous integration, unit tests, automated UI tests

- BENEFITS What exactly do web technologies offer?
- Rapid market maturity thanks to extensive libraries
- Modularity and expandability
- Platform independence
- Mostly open-source, with easy-to-fulfill license terms
- Easy to update
- Often executable directly in the browser or PWA
- Very large community and many existing frameworks
- Wide range of applications: from simple static websites via, for example, dynamic dashboards to mobile apps

- Cross-platform development (Desktop, mobile/app, cloud services)
- Responsive web design (The same layout on all platforms)
- Reliable connection of the frontend to your database and your machine controls
- Modernize your current user interface

#### SOFTWARE ENGINEERING

#### SYSTEMS ENGINEERING

#### G MECHATRONIC CONSULTING

SULTING DIGITAL EDUCATION

info@itq.de

**ITQ GmbH** 

Parkring 4, D-85748 Garching b. München

+49 89 321 981-70