Digitalisation

The environment is changing rapidly for industrial companies. Digital transformation is progressing fast. For chemistry, too, opportunities are arising through efficiency potentials, new business fields and better networking in the supply chain. Also, sustainable management and sustainable consumption are massively gaining in importance. Sustainability and digitalisation will significantly change industrial structures.

The German chemical-pharmaceutical industry with its innovations can decisively contribute to a sustainable development of society.

The new era "Chemistry 4.0" brings a new development stage in the 150-year long history of the industry. In the course of "Chemistry 4.0", the companies will fundamentally change their products, processes and business models.

Here, linking chemical and pharmaceutical products with services will be the key for additional value creation. In chemistry, digitalisation means not only the use of internal and external data to optimise operational processes; it also means the development of new, digital business models. Furthermore, the companies are working on future-oriented solutions with impulses for a sustainable economy.

In the next years, the industry plans to invest over 1 billion euros in digitalisation projects. Add to this several billion euros annually for developing sustainable innovations. The chemical-pharmaceutical industry is more and more turning from a supplier of materials into a provider of solutions and services.

Tailwind from industrial policy is needed

The changeover to "Chemistry 4.0" makes many demands on the industry. Already now, the companies are comprehensively addressing these demands. However, the paradigm shift also calls for support through industrial policy measures. Structural change succeeds best in a regulatory environment which encourages new products and services as well as investment and innovation – instead of obstructing them.

The completion of the European single market is another urgent matter, for the following reason: In the development of the digital technologies of the future, only a united Europe can be a counterweight to the USA and China which hold today the leading positions in many innovative technologies.

THE VCI IS CALLING FOR THE FOLLOWING

▸ Make Germany fit for the digital future

For the further development of digitalisation, the public sector should efficiently promote the expansion of technical infrastructure and digital education. Skills in data analysis and artificial intelligence should no longer remain expert knowledge. For this purpose, they should be firmly included in curriculums of schools from an early stage. The telecommunications infrastructure should be expanded nationwide by 2025 at the latest. This equally applies for (glass fibre-based) landlines and mobile services (4G/5G).

In parallel, a high-performance security network needs to be built in Germany and Europe between public authorities, companies and research facilities.

▸ Strengthen digital development through better framework conditions

Politicians should give impulses by way of the following: tackle urgent infrastructure investments, support the digitalisation of industry, make further efforts for trade liberalisation and a definition of international rules, and ensure that regulation is efficient and legally sound. For example, data protection provisions should not impair the development of end customer-oriented, individualised business models.

▸ Responsible regulation of new technologies such as artificial intelligence (AI)

AI as a technology stands at the beginning of its development. Therefore, innovation-friendly framework conditions are decisive for the success of AI in Germany. If specific regulation is necessary at all, it should be coordinated and agreed across national borders – in order to prevent local competitive disadvantages (“level playing field”). It must be prevented that already now (excessively tight) regulation curtails future business models or innovations.