The figures provide confirmation: implantology is a growth area in dentistry. In Germany alone, over 800,000 implants are inserted each year. More than 1,300 different dental implants are currently available; around the world, implantological procedures will achieve an estimated sales volume of five billion US dollars this year—with a strong upward trend. This will also be taken into consideration at the International Dental Show (IDS) in Cologne: every two years, in particular the implantology specialists among the dentists and dental technicians use the world’s largest trade fair in the dental sector to inform themselves about product innovations and current trends.

It is vital to follow the diverse developments in this extremely innovative specialist field. However, it is not always easy to maintain an overview as the material is complex and sometimes requires interdisciplinary approaches. In this context, the indications for dental implants have become more extensive: even patients with reduced alveolar ridge width or with reduced mesiodistal gaps between individual teeth can now be provided with implants with reduced diameter. The usually two-part mini-implants comprise the same biocompatible materials as standard implants, can optionally be inserted using a flapless approach and—depending on the individual situation—are suitable for temporary right up to immediate implantation.

In addition to new implant materials, for example heavy-duty zirconium and titanium alloys, modifications to implant surfaces are increasingly moving into the focus amongst industry experts. Optimisation of implant surfaces can be achieved both mechanically as well as biochemically. The two strategies complement each other: for example, osteoconduction can be accelerated by appropriate
adhesion of growth factors. Special processes have also been developed for modifying the roughness of titanium surfaces in the nanometre range, from classical sand blasting via plasma spray technology, anodic oxidation or acid etching, right up to nanotubes. The desired topographic configuration of the implant surfaces increases the BIC value and the adhesion of osteoblasts, from which advantages are also derived for osteointegration, such as in the case of immediate implantations.

Also of great importance with respect to bone and soft tissue regeneration are modern bone replacement materials, which are available to implantologists today in many forms. Here, the latest developments are bespoke CAD/CAM produced bone blocks based on 3-D X-ray data, which are precisely inserted and can increase the prospects of success e.g. in the case of augmentations or osteotransplantations.

In Cologne, the results of these developments are comprehensively presented by experts from the dental industry—undoubtedly a domain of the IDS. Independent of the respective implantological indication, economic planning systems and methods for improving workflows are gaining in importance everywhere. Here, an important trend relates to 3-D implant navigation systems—current methods give the clinician the option to produce suitable templates themselves using CT or DVT images or to outsource these complex processes to specialist companies within the dental industry, because modern software systems now permit 3-D planning without having DVT equipment on-site—an interesting alternative, especially for smaller practices.

The upcoming IDS also offers the implantologically-orientated trade visitor the perfect opportunity to comprehensively inform themselves about all innovations in their dynamic specialist area—an advantage that only the International Dental Show can offer, thanks to its unique size and concentrated competence. Whatever their personal focus, all visitors to the IDS from 10 to 14 March 2015 will find the solutions that suit them best: to this end, numerous experts will be on site to provide advice. Those that are planning their participation at the IDS in advance have the perfect opportunity to gain invaluable stimuli and information for their own activities.

"Implantologists have the unique opportunity to experience manufacturers and their products live at the IDS in Cologne. In this way, dentists and dental technicians can benefit directly from the professionalism of the dental industry, seek dialogues with competent experts and take away knowledge that is really practically relevant", says Dr Markus Heibach, Executive Director of VDDI.

The IDS (International Dental Show) takes place in Cologne every two years and is organised by the GFDI, Gesellschaft zur Förderung der Dental-Industrie mbH, the commercial enterprise of the Association of German Dental Manufacturers (VDDI). It is staged by the Koelnmesse GmbH, Cologne.

www.ids-cologne.de