Orthotown Magazine sits down with Bob Pienkowski, President of Planmeca USA, to learn more about how and why a small-scale Finnish dental company founded in 1971 has become the largest privately held dental imaging company.
First of all, can you tell us how Planmeca got its start?

Pienkowski: Founded by Mr. Heikki Kyöstilä in 1971, the Finnish dental company Planmeca Oy started as a small-scale business manufacturing dental stools and instrument cabinets. Very early on, however, the company expanded its product range into patient chairs and dental units, penetrating the international market with a global approach and vision and establishing its first foreign subsidiary in 1979.

Since the company’s establishment, Planmeca’s developers have worked closely with dentists and leading universities to anticipate future trends, using this data to design an advanced line of high-tech imaging products and core equipment. From the introduction of the first microprocessor-controlled chair, to the development of the ProMax line of imaging units with SCARA (Selectively Compliant Articulated Robotic Arm) technology, Planmeca has always led the way with new technology. Innovative Research and Development and its results—Planmeca’s advanced products—have been the cornerstones of our international success.

Since its inception, how has the company evolved?

Pienkowski: Planmeca has grown from a small-scale business in Finland to the world’s largest privately held dental imaging company and one of the industry’s leading manufacturers of panoramic and cephalometric X-rays. Over the past four decades, we’ve expanded our sales network in more than 100 countries worldwide. We have headquarters in Roselle, Illinois, which is a suburb of Chicago, and we work with an exclusive network of dealers to accommodate our North American customers.

Tell us about SCARA technology.

Pienkowski: One of Planmeca’s greatest contributions to dental imaging is its innovative, upgradeable product platform—all of this is based on our exclusive, patented SCARA technology. Since it’s software-driven, SCARA technology enables limitless possibilities to upgrade existing equipment, allowing the new orthodontist on a smaller budget to grow while making only appropriate and necessary equipment investments. For example, Planmeca products can be upgraded from a 2D panoramic X-ray to a combination of pan/ceph capabilities, which can be further upgraded to accommodate 3D imaging needs. Whether it is the transformation of a film to a 3D unit, or the addition of a cephalometric arm, Planmeca offers solutions for every upgrade need. This single piece of technology makes the ProMax the most versatile all-in-one X-ray unit available on the market.

Planmeca’s ProMax 2D S3, 3D, 3D Plus and 3D Mid imaging units also offer an exclusive Anatomically Accurate Extraoral Bitewing program, possible only with SCARA technology. This innovative program consistently opens interproximal contacts, virtually eliminates patient positioning errors, and is more diagnostic than other intra-oral modalities. ProMax extra-oral bitewings are ideal for a number of patients from the elderly and those requiring periodontal work to those with claustrophobia, sensitive gag reflexes or those in pain. All of this comes in a true bitewing program that enhances clinical efficiency and takes less time and effort than a conventional intra-oral bitewing.

How does the extra-oral bitewing program fit with SCARA technology?

Pienkowski: Taking the best image possible, whether it is a bitewing, intra-oral image, panoramic or cephalometric exposure, requires a dental imaging unit to be able to adjust to the patient’s unique size and features. SCARA allows the dentist to adjust to every nuance of the patient for the best image possible, with the benefit of limiting radiation based on clinical areas of interest.
When a customer approaches Planmeca and asks about radiation exposure, how does the company respond?

Pienkowski: Our team focuses on the ALARA (As Low As Reasonably Achievable) radiation principle. We have recently released a new imaging mode in our 3D line called Ultra-Low Dose (ULD). ULD is a breakthrough in imaging technology that brings 3D data and all of its additional information and perspective into the treatment plan with the same amount of radiation as a single 2D panoramic, and in many cases even less depending on the volume size. For years, orthodontic offices had to weigh the benefits of the additional information the 3D volume brought against the higher levels of radiation. Now, with our Ultra-Low Dose mode, they are able to obtain more information without compromising patient safety.

Our ProMax units also feature horizontal and vertical segmentation, which limits the exposure to diagnostic areas of interest. By selecting these options, patient dose can be reduced by up to 93 percent, which is highly advantageous when follow-up images are needed. Additionally, our units have a pediatric dose setting that allows the orthodontist to calibrate the amount of radiation to fit the size of the patient. Given parents’ concern about radiation exposure for young children, we feel this is an important feature that sets us apart from our competition.

Planmeca has trademarked the term “Digital Perfection.” What does this mean? What does this process involve?

Pienkowski: Building on the well-established all-in-one idea of integration, Planmeca introduced the Digital Perfection concept in 2011. Seamless integration of dental equipment and software creates highly efficient diagnostic tools, optimized workflow and advanced infection control methods that result in a treatment environment where all equipment shares an open interface.

We work worldwide with all aspects of the dental industry, including dental schools, dentists and dental team members, as well as dealers, and use the latest technologies to create the best products for offices and patients alike. As a forerunner in digital imaging technology, Planmeca delivers complete solutions based on integrated high-tech device and software options with cutting-edge design.

Planmeca has established itself in the world of digital orthodontics. Tell us about some of the ways you integrate digital technology.

Pienkowski: Technology only makes sense in a dental practice when it improves not only the patient care, but also the

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workflow for the office. Since the very early days of digital, Planmeca has been the imaging brand of choice for orthodontics because our digital products are able to minimize patient radiation levels and work seamlessly with ortho-specific software in the office. Even for offices that choose a Mac OSX platform, we are the only imaging manufacturer that can capture natively in Mac OSX across our entire product line.

Today, we feel that integration goes even further than just operability. Our products embrace an “open-architecture” philosophy that allows the office to choose the hardware that best fits their demands and fits with the software they choose as well. This helps the orthodontic office feel comfortable moving forward with digital and cone beam technologies. They know that they have options. They do not feel that a single hardware purchase will then dictate a large number of other decisions simply because it is not open architecture.

What are some of the ways Planmeca extends beyond the radiology setting?

Pienkowski: We’re going above and beyond our original designs in the core equipment category. Our line of chairs and dental units is designed around the key concepts of ergonomics, comfort and usability to support an orthodontist’s workflow throughout the day.

Going further, we’ve even designed the industry’s first connection between dental units and software with the Planmeca Romexis Clinic Management Module. Available for Compact i, Sovereign Classic and Sovereign dental units, this sophisticated yet easy-to-use system provides real-time information on all unit operations in an orthodontic practice. By networking the units together, orthodontists and assistants can easily adjust and program individual chair positions and instrument presets; these preferences then become available from any unit in the practice. This also enables remote monitoring of all unit functions, making maintenance one less thing an orthodontist has to worry about throughout the day.

What sets Planmeca apart?

Pienkowski: We reinvest 10 percent of annual revenue back into Research and Development. As a result, our technology is always rapidly improving. The best purchase decisions are ones that allow an office to stay up-to-date and even ahead of the technological development curve. Planmeca and its ProMax line allow the office to do just that.

In the last year, we have come out with many improvements to our 3D line. From one end of the spectrum, we have our Ultra Low-Dose imaging, which reduces the dose from a large-volume 3D to the same or less than a 2D pan. We then have the recent unveiling of the highest resolution (.075um) 3D volume available in the industry. These changes are available to every single 3D customer of ours.

Planmeca has designed a 2D and 3D Platform in the ProMax that is not only upgradeable to 3D, but is then also updatable to the latest technology we offer. Some of these updates involve only a simple software change, but even in the cases where a hardware change is required to update to the very latest, the office is investing a fraction of the cost of a new machine to be on par with the best technology in imaging. No other company in the field has a reputation for true upgradeability like we have with the ProMax. It’s always exciting to imagine what we will be doing next year or three years from now with the ProMax platform.

What are you most proud of at Planmeca? What has been your most rewarding experience in the context of working at Planmeca?

Pienkowski: I have always been most proud of how dedicated Planmeca is to following the ALARA principle in the design of its X-ray devices. Before Ultra-Low Dose mode, we were able to offer combination units that would take low-dose 2D panoramics and cephalometrics, as well as 3D cone beam volumes, when others were only able to offer a higher dose large-volume 3D. Now, with ULD mode, we are furthering our goal of designing and manufacturing products that help facilitate good choices in the orthodontic office. The practitioner can decide the imaging mode and modality according to his or her clinical need.

I’m very proud of what we’ve built. Planmeca’s imaging units offer superior image quality, reduced radiation during routine procedures, easy upgradeability and advanced, user-friendly imaging software. Planmeca has been a leader in digital imaging and advanced computer-integrated dental care concepts for years, and our goal is to remain in the forefront of technology as the field of dentistry evolves.