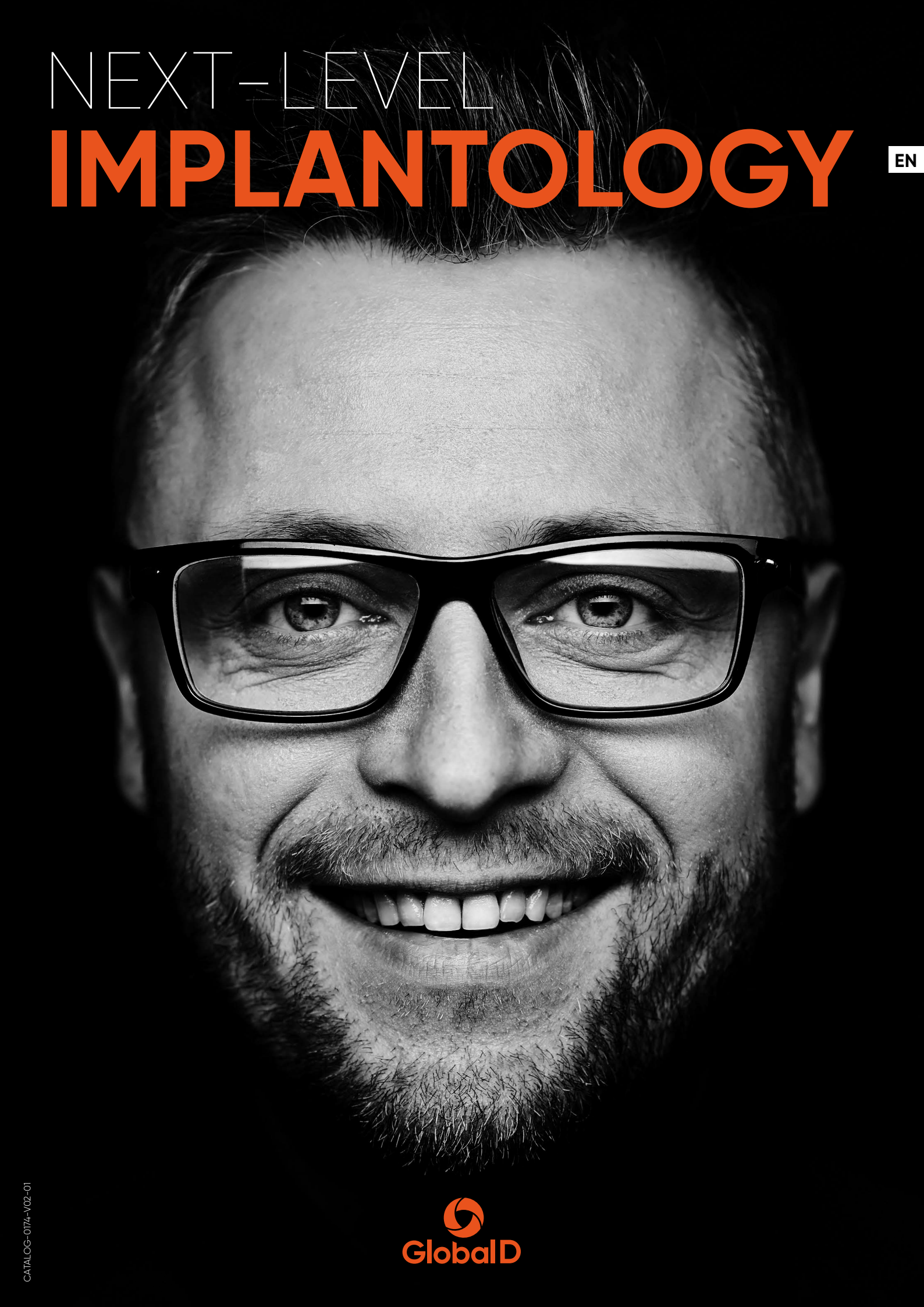
NEXT-LEVEL IMPLANTOLOGY

EN



GlobalD

CATALOG-0174-V02-01

CONTENTS

04 Global D

20 Bone Level Implantology

32 Tissue Level Implantology

42 Instrumentation

48 Digital Solutions

62 Regeneration

Reveal your patients' ***personality***

Facial appearance is central to our emotions, our expressions and our identity.

An uneven smile, a misaligned jaw, a visible asymmetry...

For many people, these signs are so much more than an aesthetic imperfection: they are **invisible barriers** preventing them living life to the full.

Studies have confirmed it: edentation increases the risk of cognitive decline* and facial appearance influences the perception of personality in the social and professional spheres**.

We are convinced that a successful treatment changes more than a profile. It helps reveal ones true self.

GlobalD

* https://pubmed.ncbi.nlm.nih.gov/33711405
** https://pubmed.ncbi.nlm.nih.gov/24874952

Increase synergies

For over **40 years**, we have been placing our **industrial** and **clinical expertise** at your disposal so that together, we can give your **patients** their **smile** back.

Global D is a French manufacturer which has always centred itself on preserving biological width. This sensibility enables us today to have a therapeutic arsenal, used for **implantology**, **orthodontics** and **maxillofacial** specialities.

+20,000
users worldwide

+10 million
medical **devices** made by
Global D worldwide

French expertise deployed internationally

+25
countries

- A subsidiary in **Italy** since **2011** — Partnership with universities in **Rome**, **Naples** and **Bologna**
- A subsidiary in **Spain** since **2016**
- A subsidiary in **Poland** since **2018**

LA FRENCH FAB

oskar
Oral Surgery Keys & Research

YOUR DEVELOPMENT IS OUR MISSION

Oskar is a **training** organisation dedicated to perfecting dental and oral surgery, as well as practice management. By means of solid programmes run by renowned experts, Oskar supports dental professionals developing their skills and the development of their practice.

+22 trainers

+35 dates per year

+1,300 people trained

Qualiopi certification

To **find out more**, visit **our website**

Qualiopi processus certifié
RÉPUBLIQUE FRANÇAISE
Quality certification has been delivered in the following categories of action:
TRAINING ACTIONS

www.oskar-training.com

LES PRINTAS

A taste for sharing

Every year **Global D** welcomes **several thousand surgeons** who work in **dental implantology** or **maxillofacial surgery**.

In joining **Global D**, you are joining a **large family** that has the success of your practice at heart.

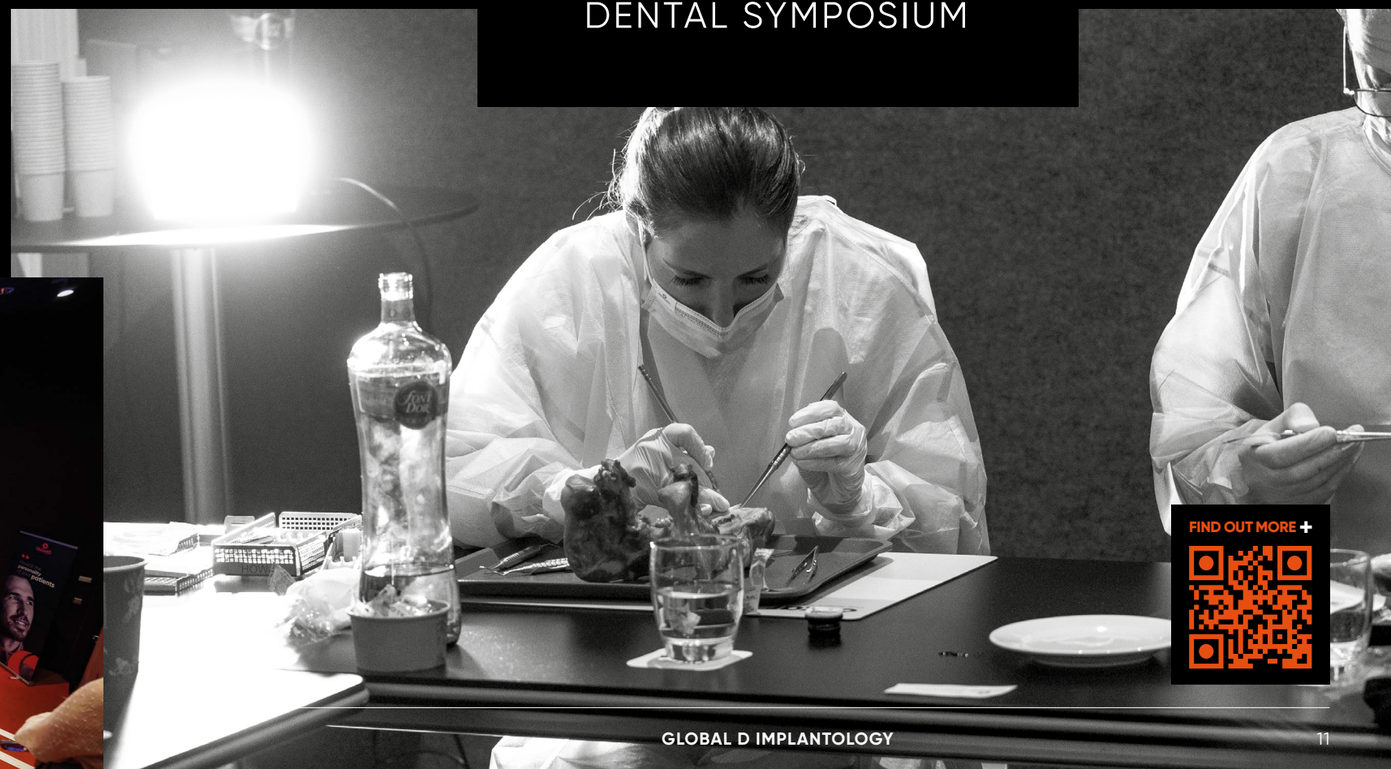
Enlighten your practice and your mind

More than a conference, **Les Lumières by Global D** is an invitation. To reflect. To experiment. To share. To take a step to the side, **in order to better go forward**.

Les Lumières is a mindful break from the frenetic rhythm of the clinic. A **special moment**, away from the daily routine, to gain perspective.

Here, you will find no formal presentations. No lukewarm consensus. But **honest exchanges**, between **exacting peers**.

les LUMIERES
DENTAL SYMPOSIUM



FIND OUT MORE +

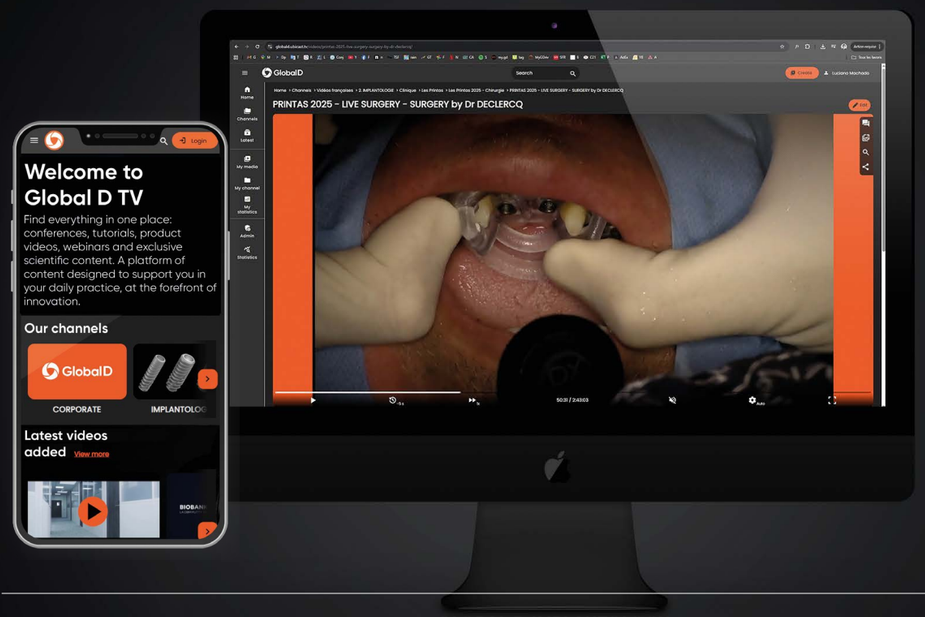
GLOBAL D

Shared expertise, a customised experience.

tv.globald.com

EXPERTISE ON VIDEO

Explore the world of implantology:
the **surgical procedures**, **inspiring conferences** and all the **scientific understanding** of Global D products.



FIND OUT MORE +

Next-level Implantology

At **Global D**, we regard **implantology** as the heart of a **complete ecosystem**, where each product, innovation and partner contribute, with precision, to your clinical success. Our solutions **are inspired by the human body** to ensure optimal biological and mechanical integration. This **requirement** for **precision** and **coherence** enables us to move towards implantology which is fully connected to your practice.

TRIPLE INTEGRATION, A KEY SUCCESS FACTOR FOR YOUR IMPLANT-BASED RESTORATIONS.

Respecting the prosthetic corridor for precise three-dimensional positioning of the implant

MECHANICAL INTEGRATION

Immobility and integrity of the prosthetic assembly during masticatory movements.[2] [3]

PERIODONTAL INTEGRATION

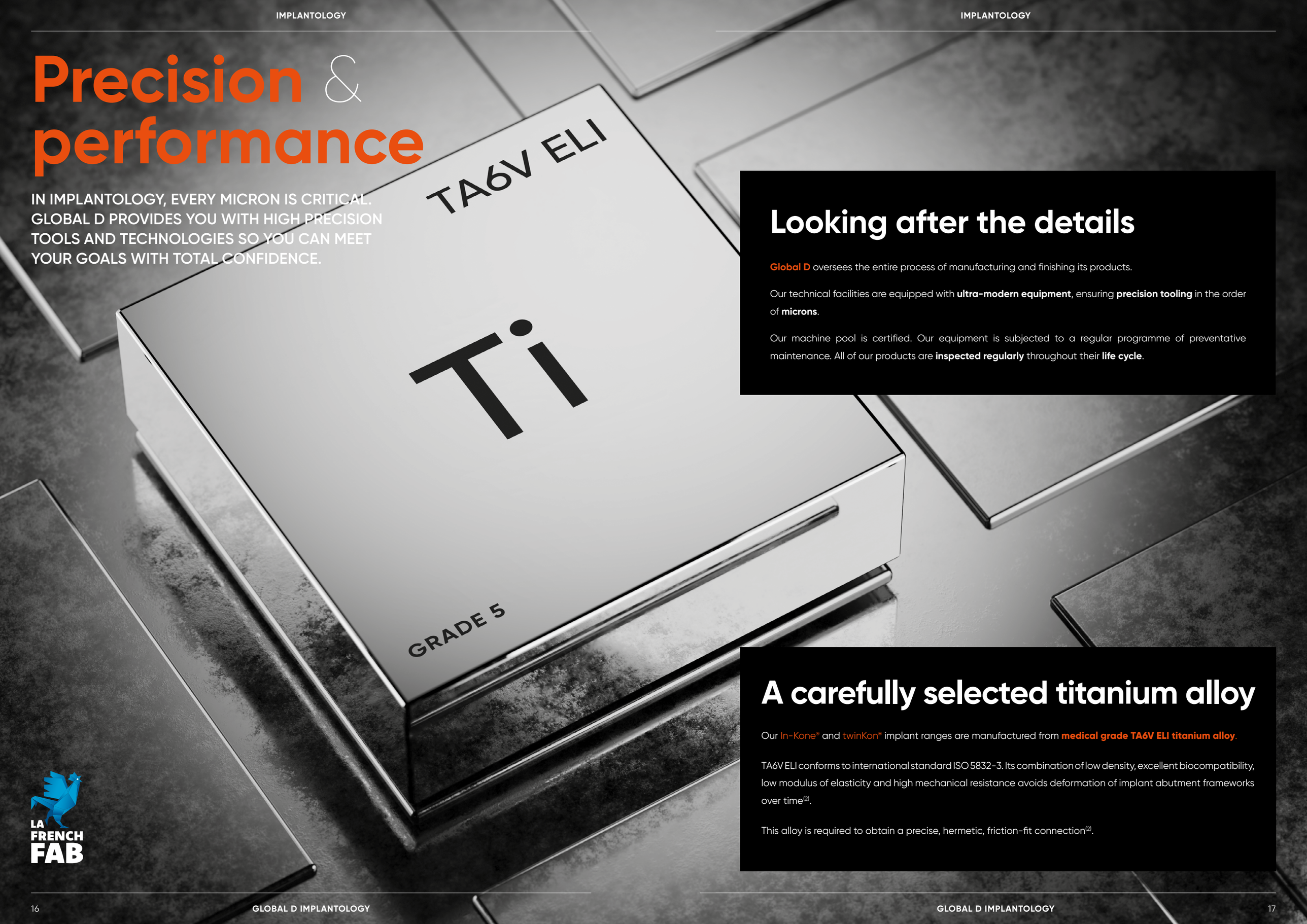
Barrier against the risks of percolation and contamination at the implant-prosthesis interface.[1] [4]

OSSEOUS INTEGRATION

Osseointegration of the implant and preservation of the peri-implant bone plates.[5]

Precision & performance

IN IMPLANTOLOGY, EVERY MICRON IS CRITICAL. GLOBAL D PROVIDES YOU WITH HIGH PRECISION TOOLS AND TECHNOLOGIES SO YOU CAN MEET YOUR GOALS WITH TOTAL CONFIDENCE.



LA FRENCH FAB

Looking after the details

Global D oversees the entire process of manufacturing and finishing its products.

Our technical facilities are equipped with **ultra-modern equipment**, ensuring **precision tooling** in the order of **microns**.

Our machine pool is certified. Our equipment is subjected to a regular programme of preventative maintenance. All of our products are **inspected regularly** throughout their **life cycle**.

A carefully selected titanium alloy

Our In-Kone® and twinKon® implant ranges are manufactured from **medical grade TA6V ELI titanium alloy**.

TA6V ELI conforms to international standard ISO 5832-3. Its combination of low density, excellent biocompatibility, low modulus of elasticity and high mechanical resistance avoids deformation of implant abutment frameworks over time[2].

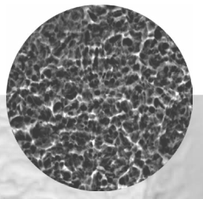
This alloy is required to obtain a precise, hermetic, friction-fit connection[2].

A RECOGNISED SURFACE TREATMENT

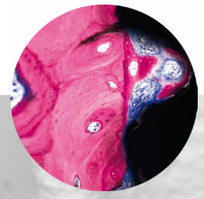
All our implants are subject to an SA² surface treatment. The surface finish of our **In-Kone®** and **twinKon®** implants is obtained by sandblasting followed by double etching.

The resulting **roughness** (**Ra**) is between **1.5** and **2 microns**. This is described as moderate roughness by scientific literature and it encourages both cellular differentiation and the proliferation of osteoblasts on the surface of the implant[3].

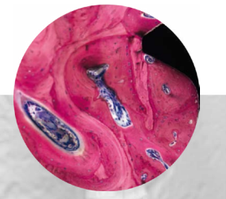
A study on beagles conducted on the **In-Kone®** demonstrated contact **osteogenesis** after **3 weeks** and bone in the remodelling phase after **12 weeks** in the implant thread spaces[3].



from 1.5 to 2 µm



3 weeks



12 weeks

CERTIFIED CLEAN COMMITMENT

THE SA² SURFACE FINISH IS CERTIFIED BY THE CLEAN IMPLANT FOUNDATION, WHO CERTIFY **THE CLEANLINESS OF IMPLANTS**, USING RANDOM SAMPLES TAKEN FROM THE MARKET.

TRUSTED QUALITY 2019-2026
CLEAN IMPLANT
Global D • IN-KONE

A fresh take on Bone Level implantology

AESTHETICS ARE AT THE HEART OF IN-KONE® PHILOSOPHY. ITS DELIBERATE SUBCORTICAL POSITION ENABLES EXPANSION OF THE BONE PLATES AND SUPPORTS THE PERI-IMPLANT SOFT TISSUE.

The different platforms Standard | ST | , **Wide | WD |** and Narrow | NR | enable it to adapt to most indications.

- **Conical internal connection**
- Roughened **chamfered shoulder**
- **Cylindroconical** body
- **Self-tapping** profile
- **Atraumatic** apex

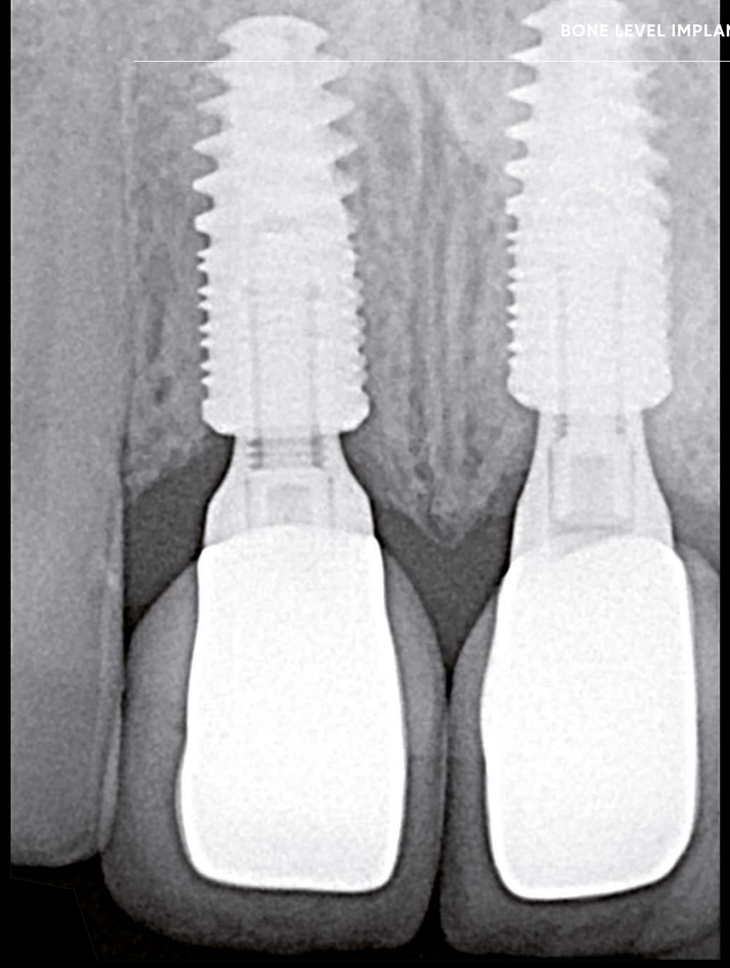
THE IN-KONE® RANGE

Measurable[6] clinical benefits

In-Kone® is a two-piece dental implant that can be used in one or two surgical steps, as well as for immediate aesthetic procedures. It falls into the so-called **"Bone Level"** category of implants, with the particularity of enabling subcrestal positioning.

It has a unique roughened chamfered collar and internal connection via a friction cone, two characteristics that enable the implant shoulder to be positioned from 1.5 to 2 mm below the cortical bone.

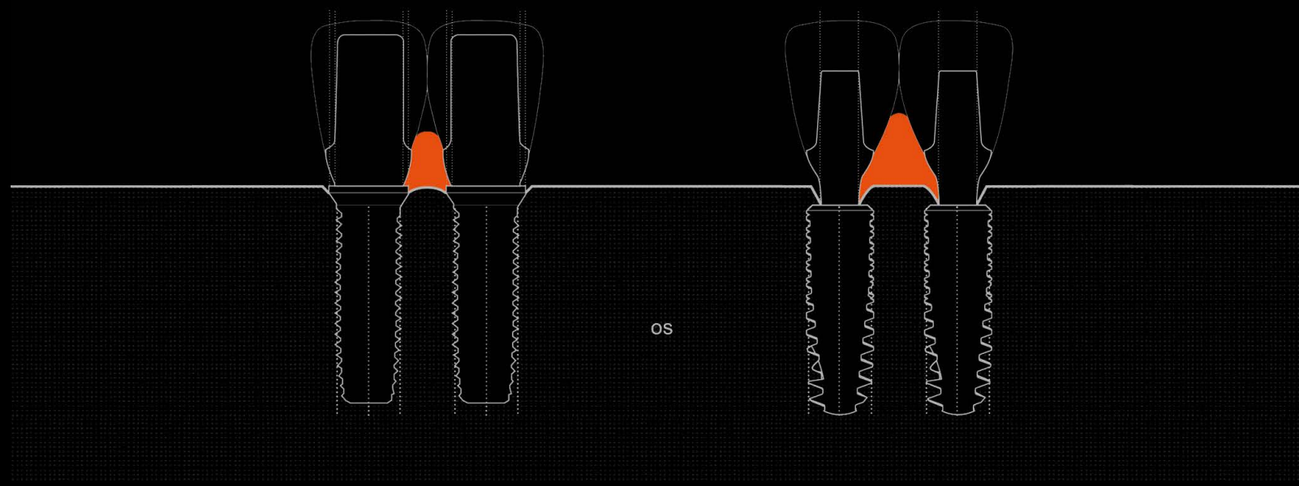
In-Kone®
Survival rate according to the longitudinal study of 1,788 implants[6]
At 1 year: **99.4%**
At 5 years: **99.1%**



Mucosal volume

The enlarged bone plate around the In-Kone® implant provides **natural support for the peri-implant soft tissue.**

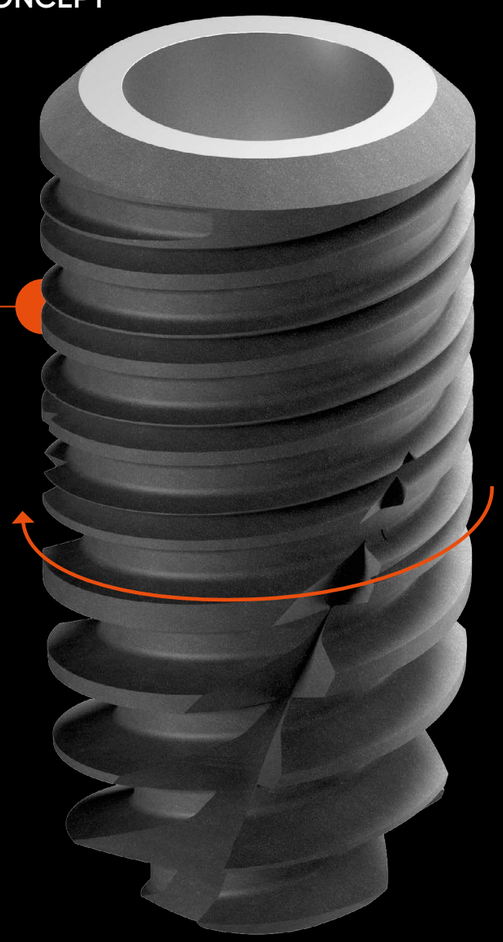
The **"tulip-shaped"** profile of the associated prosthetic components then promotes **crimping of the restorations** with a **thick mucosal seal.**[4]



For anterior cases and full arches In-Kone® ST

THE FLAGSHIP IMPLANT OF THE IN-KONE® CONCEPT

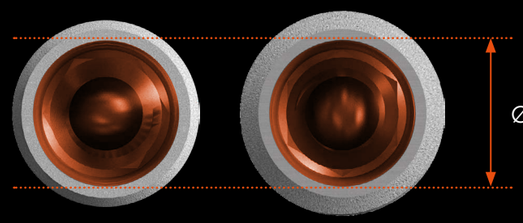
Recommended for rehabilitation of anterior regions and full arches

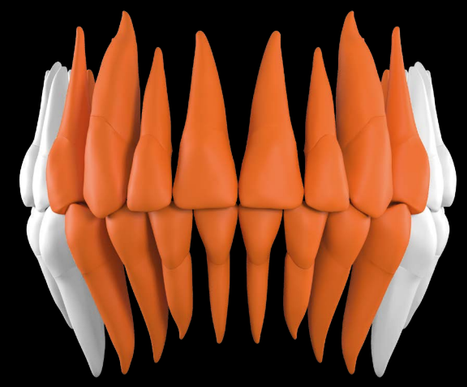


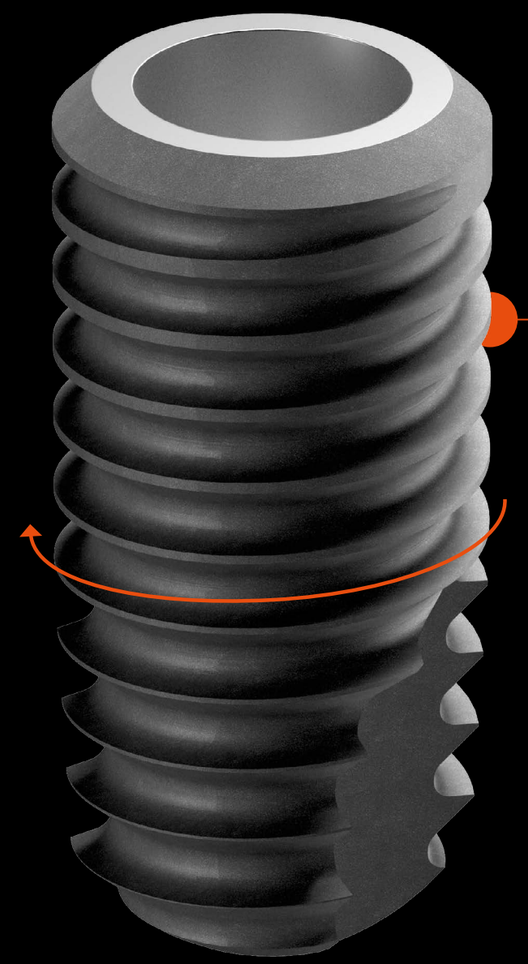
U

The UNIVERSAL profile has a gradual double thread to achieve **more stable primary anchorage** in low density bones. This profile is ideal for **immediate loading** rehabilitation.

360° turn
=
Apical progression
2.0 mm







P

The PRIMO profile has a regular single thread suitable for surgeons seeking a certain **flexibility** in high density bones.

360° turn
=
Apical progression
0.8 mm

Surface **SA²**

Grade **5 titanium**

In-Kone® |ST|

In-Kone® |WD|

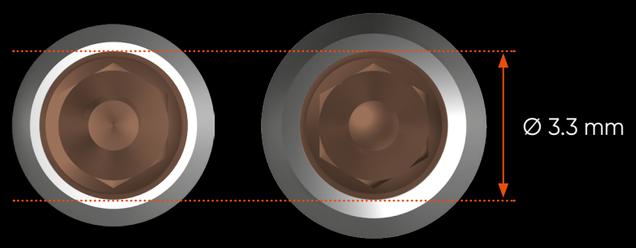
In-Kone® |NR|

For posterior cases In-Kone® WD

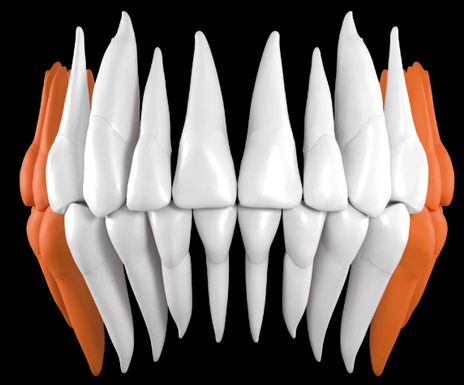
OPTING FOR RESILIENCE WITH A **WIDER** ALTERNATIVE

Recommended for rehabilitation in the constrained posterior areas, particularly in recessed single cases.

The In-Kone® WD platform has been specifically designed to achieve up to **60% higher* mechanical resistance** of the implant-abutment assembly, for areas undergoing significant masticatory stress.



* Tests performed in accordance with NF EN ISO 14801:2016 – Dentistry – Implants – Dynamic testing of single post endosseous dental implants.



In-Kone® |ST|

In-Kone® |WD|

In-Kone® |NR|

Universal profile

Surface **SA²**

Grade **5 titanium**

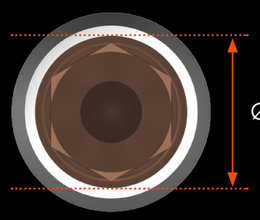
For reduced spaces

In-Kone® NR

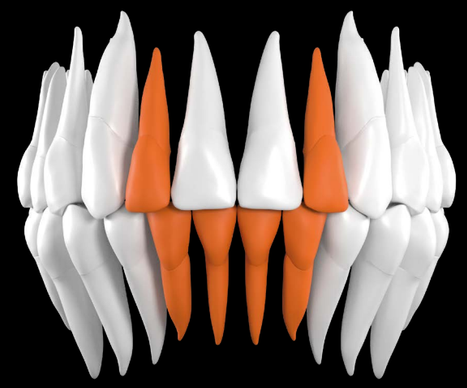
THE NARROW ALTERNATIVE, OPTING FOR FINESSE

Recommended for rehabilitation of maxillary lateral incisors and mandibular incisors in reduced mesiodistal spaces.

The implant is equipped with a **5° friction cone** and a smaller prosthetic platform, identified as Narrow (NR). The In-Kone® NR implant therefore has its own range of prosthetic components.



Ø 3 mm



U **Universal** profile

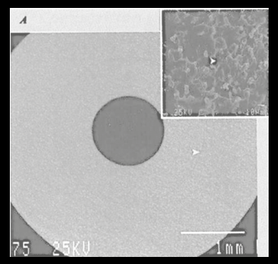
Surface **SA²**

Ti 5 Grade **5 titanium**

Bone-Level prosthetic components

Photo credit: Dr Pierre SACAZE

Periodontal integration



Horizontal section view

Vertical section view

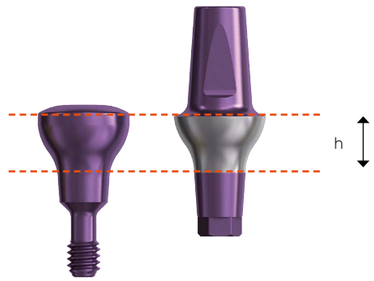
A **stable** implant-prosthesis connection

With the aim of preserving the tissues, the In-Kone® prosthesis connection ***(8° friction cone type)*** is designed to propose the most **stable** connection possible, both **mechanically** and in terms of its **seal**.

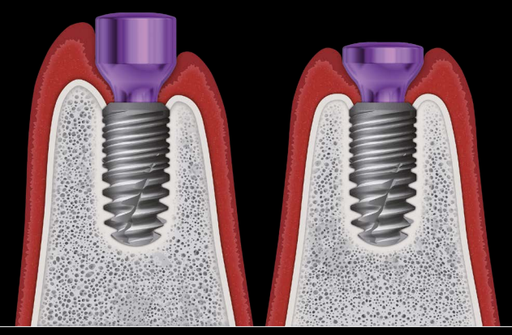
The connection stability prevents the risks of micro-movements caused by the occlusal forces and metal deformation, two phenomena that can cause bacterial leakage at the interface[1]. Finally, this stability means that it is possible to propose prosthetic components with a concave design at the connective tier of the peri-implant mucosa[1].

THE RANGE OF IN-KONE® PROSTHETIC COMPONENTS OFFERS A BROAD CHOICE OF REFERENCES FOR PROGRESSIVE MANAGEMENT OF DIFFERENT BIOLOGICAL HEIGHTS.

The **"tulip-shaped"** transmucosal profile of the prosthetic components combined with their concave emergence, available in the **In-Kone®** range, are designed to free the thick connective tissues and encourage their reorganisation. This promotes vascularisation[4] without the risk of compression on the bone edges.



A **colour code** indicating the selected **periodontal height** enables simple, immediate matching of the **healing screws standard** and **posterior abutments**.



A fresh take on Tissue Level implantology

THE SURGICAL AND PROSTHETIC ACCESSIBILITY OF THE TWINKON® RANGE, WITH THEIR CONCAVE COLLAR IN CONTACT WITH THE PERI-IMPLANT MUCOSA, A MUCOSAL SEAL FORMS FROM THE INITIAL HEALING PHASE.

Our core concept: an implant with a **smooth transmucosal collar** based on an original patented design is topped with a **external tapered connection** enabling **mucosal healing from the first osseointegration phase**. This, similar to a thick O-ring, acts as a natural protective barrier against the main pathogenic bacteria.

Concave collar

External tapered part at **5°**

Conical external connection

Universal profile

twinKon® 4

twinKon®

twinKon®

twinKon® 4

Measurable clinical benefits[7]

The twinKon® is a dental implant in the **"Tissue Level"** category, used during surgery.

However, contrary to other Tissue Level implants, the twinKon® has an innovative design with two original characteristics: a **refined smooth concave transmucosal collar**, topped with a **prosthetic connector with external tapered part at 5°**

twinKon®
5 year survival rate according to a retrospective study on 70 patients[7]
Survival rate: **99.4%**
Satisfaction rate: **98.6%**

Density of the **fibrous network**

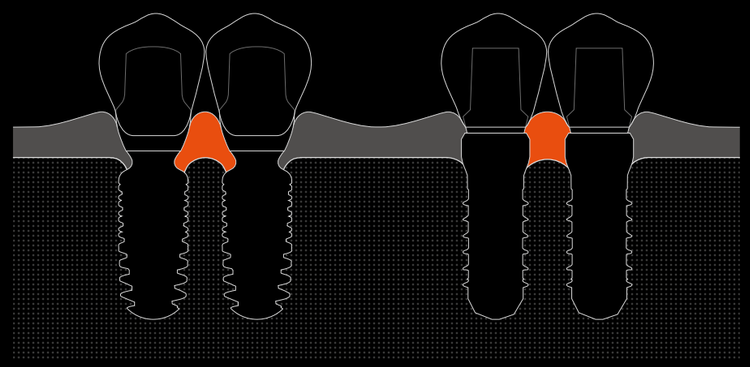
Within an international publication[8] performed on beagles, the presence of **dense soft tissue, rich in fibroblasts and collagen fibres**, was observed around the transmucosal collar of the twinKon® implant after only three weeks of healing.
At 12 weeks, the authors demonstrated the perpendicular reorganisation of these collagen fibres at the implant collar, and consequently, the **presence of a thick, stable connective tissue seal**.

Photo credit: Dr Nicolas DAOUD

Tissue stability

Due to its rounded shoulder, the enlarged bone plate around the twinKon® implant provides natural support for the peri-implant soft tissue.

The vertical displacement of the prosthetic interface **reduces the invasive nature of manipulations** and preserves the biological width from the osseointegration phase.

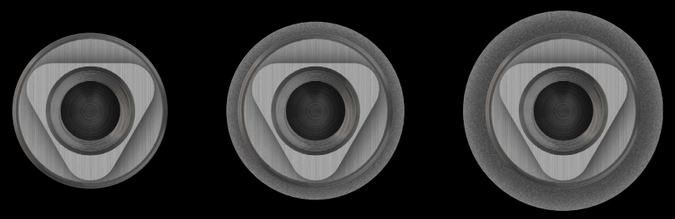


Transmucosal implant with concave collar twinKon®

Recommended for rehabilitation of the majority of implantable regions, particularly in the posterior sector of the mandible (diameters 4 mm and 4.5 mm).

- **Control** of the emergence profile facilitating management of soft tissue and aesthetics
- **Good surgical accessibility**
- **Ease** of prosthetic manipulations above the mucosal seal

Single connection for 3 diameters:



Ø 3.5 mm | Ø 4 mm | Ø 4.5 mm

U **Universal** profile | Surface **SA²** | Ti 5 Grade **5 titanium**

For cases of severe bone atrophy in the posterior sector of the mandible

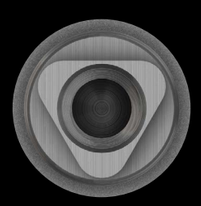
twinKon® 4

Recommended for rehabilitation of the posterior sector of the mandible with multiple trans-screwed prostheses.

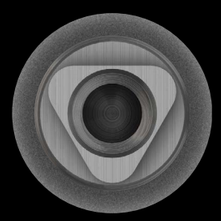
- Ultra short, length 4 mm
- Survival rate at 5 years 99.4%
- Preservation of residual bone capital over time

A **dedicated**[1] drilling protocol

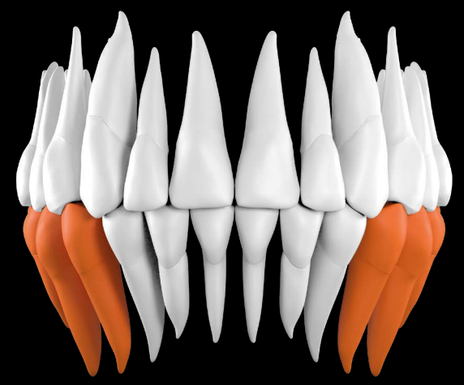
The twinKon® 4 is used with **specific instrumentation** which comprises dedicated drills with fixed stops, used at a very slow speed, so as to precisely control drilling depth in relation to the presence of the **alveolar nerve**.



Ø 4 mm



Ø 4.5 mm



Surface **SA²**

Grade **5 titanium**

Academy of Osseointegration

EAO EUROPEAN ASSOCIATION FOR OSSEOINTEGRATION

"Best Oral Clinical Presentation for the 2021 AO Annual Meeting for presentation on 4mm Supershort Implants Compared with Longer Implants Placed in Reconstructed Posterior Atrophic Jaws: 3 Year Results from an RCT**"**

Over **10 years** of **clinical experience**

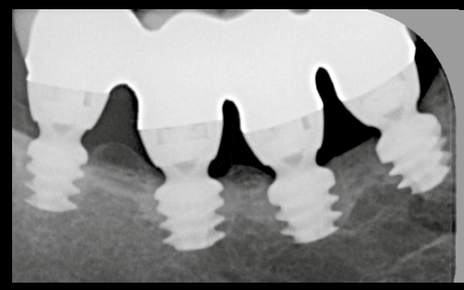


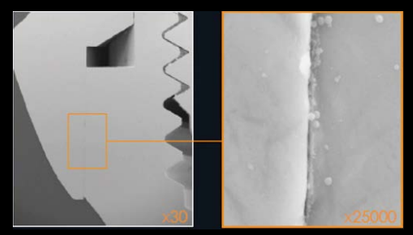
Photo credit: Dr Pietro Felice

Tissue Level prosthetic components

A **stable** implant-prosthesis connection

With the aim of preserving tissue, the twinKon® ***prosthetic connection (morse cone at 5°)*** enables the most **stable** connector possible, both **mechanically** and in terms of its **seal**.

The **connection stability** prevents the risks of micro-movements caused by the occlusal forces and metal deformation, two phenomena that can cause bacterial leakage at the interface[1]. **The external connector of the implant, at a distance from the tissue, promotes its maintenance over time.**



Vertical section view

Biological width is **respected**

Mechanical stability of a morse cone: The external morse cone at 5° provides an effective solution for prosthetic stability. This type of connector enables both homogeneous distribution of stress on the implant-abutment contact surfaces and the reduction of micro-movements under the effects of occlusal loads.

Photo credit: Dr Jean-Pierre AXIOTIS

The vertical displacement of the prosthetic interface **preserves healed connective tissue**, and **reduces the invasive nature of prosthetic manipulations:** the **biological width created naturally** the osseointegration phase **is preserved**.

The external prosthetic connector is **more accessible in the mouth**. Insertion and manipulation of prosthetic components is therefore **simplified and more intuitive, particularly in posterior areas.**

Prosthetic components **tailored to the patient's anatomy**

The twinKon® range of prostheses allows the construction of cement-retained and screw-retained prostheses.

The presence of an anti-rotational trigone on abutments and titanium bases (5 mm and 6.5 mm in diameter) enables indexing of prosthetic components and facilitates their positioning in the mouth.

For multiple trans-screwed prostheses, straight conical abutments are available in 2, 4.3 mm and 5.4 mm diameters: the only parts recommended for **twinKon® 4**.

Instrumentation

GLOBAL Display
oral and implant surgery motor

The **Global Display** is the product of a collaboration between **Global D** and **Bien-Air**.

The motor is designed for clinicians in search of precision and performance.

Tailored for **implant surgery** and **oral surgery**, this motor will support you during all your procedures.

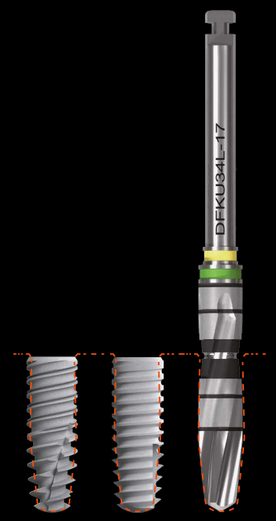
- **Easy** handling
- **Simplified** procedures
- Designed for **ease of use**

To check product availability in your country, please contact your designated representative.

Bien-Air Dental

The ULTIMATE® kit for your free-hand surgical procedures

THE ULTIMATE® KIT ENABLES HOMOTHETIC PREPARATION OF THE IMPLANT SITE TO GIVE A UNIFORM PRIMARY STABILITY DEPENDING ON THE BONE DENSITY ENCOUNTERED



The drills combine highly precise cutting and **effective evacuation of bone shavings**.

Clinically validated, the kit adapts to all bone densities.

The **ULTIMATE®** kit has been designed to provide an optimised series of drills to facilitate your surgical procedures.

Compatible with: In-Kone® Standard | ST | , **Wide | WD |**, Narrow | NR | and twinKon® (except twinKon® 4: see page 38).

Guided surgery kit G20

TO GUIDE THE DEPTH AND AXIS OF YOUR INITIAL DRILLING

Enables increased control of the three-dimensional positioning of your implants

- Combination of guided pilot drill, known as pilot, and **free-hand surgery**.
- Control the **axis** and **depth** of the pilot drill.
- A **unique solution** for our implants (6 lengths of pilot drills with 2 mm diameter, corresponding to each length of implant).
- 3 pins* to stabilise the guide, particularly in cases of total edentation.
- A 1.5 mm diameter drill** to make it easier to insert them into the bone.
  Two types of sleeves are also available separately.

FIND OUT MORE +

*The pins are medical devices manufactured and CE-marked by Biomec (CE 0051). Please read the manufacturers' instructions before use.
**The pilot drills and drills for pins are medical devices manufactured and CE-marked by SAEG (CE 0476).

Guided

Gain peace of mind and precision

ULTIMATE G42

For the majority
of cases

Ø 4.2 mm

For In-Kone implants:
Ø 3 mm, **Ø 3.5** mm and **Ø 4** mm
For twinKon implants:
Ø 3.5 mm and **Ø 4** mm

Surgery

with a simple, user-friendly protocol

ULTIMATE G52

For cases
in the posterior region

Ø 5.2 mm

For In-Kone implants:
Ø 4.5 mm and **Ø 5** mm
For twinKon implant:
Ø 4.5 mm

ULTIMATE® Philosophy

The philosophy of the **ULTIMATE** protocol is based on **direct guide** drills. No drill key type intermediary diameter reducing systems are therefore required. The protocol is designed to ensure systematic **continuity of guiding** of the different drills before contact with the bone.

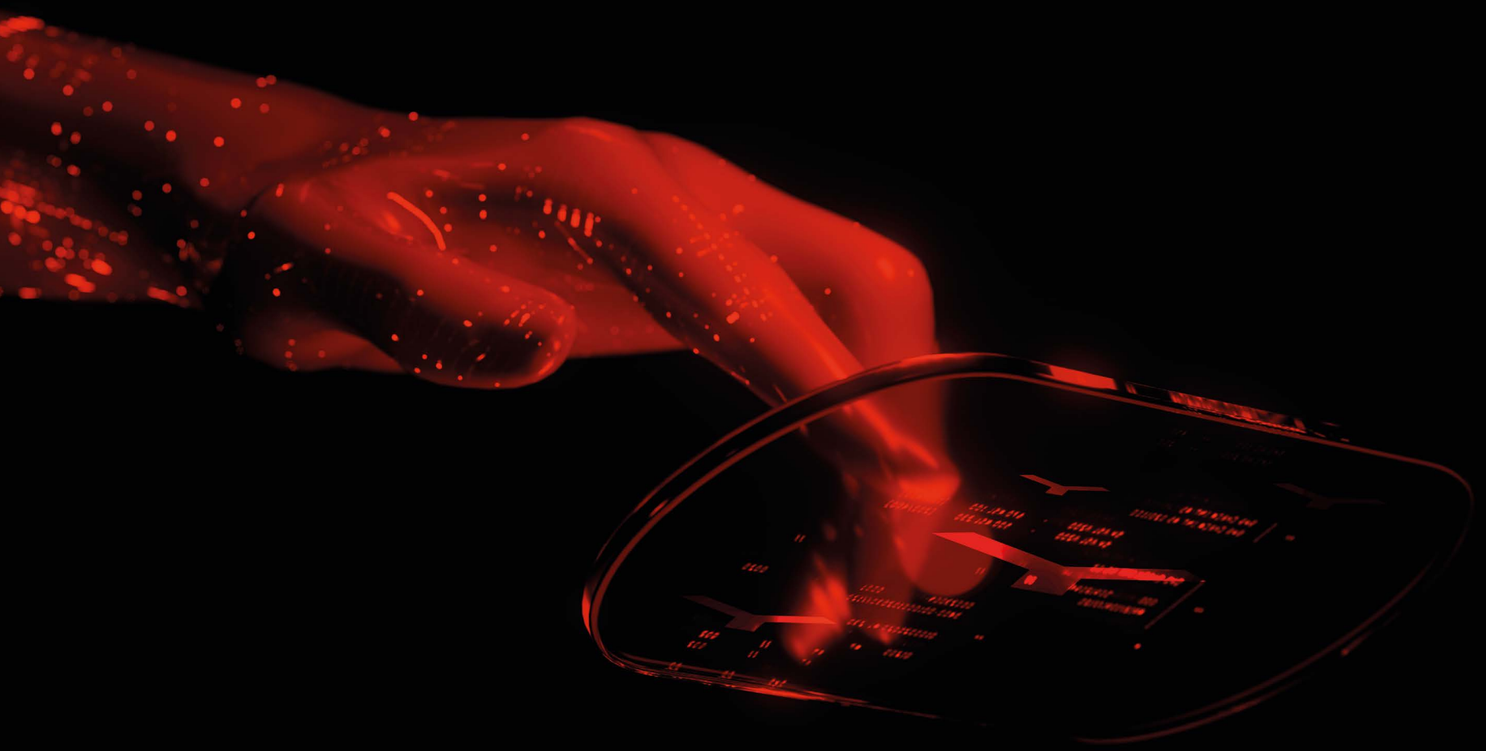
The range of drill lengths enables a **unique standard offset** (the distance between the drill stop on the sleeve and the neck of the implant), regardless of the implant length.

- Full guidance
- Compatible with drilling and guiding for **In-Kone®** implants
- Compatible with drilling for **twinKon®** implants
- A turnkey solution to **maximise precision** and **optimise** your **digital workflow**

FIND OUT MORE +

Digital Solutions

Respects the prosthetic corridor for precise three-dimensional positioning of the implant



Enter **Global D's open digital world** and remain free to choose which technology you use. We will help you to install the right solution to meet your needs, **and support you in your digital projects**.

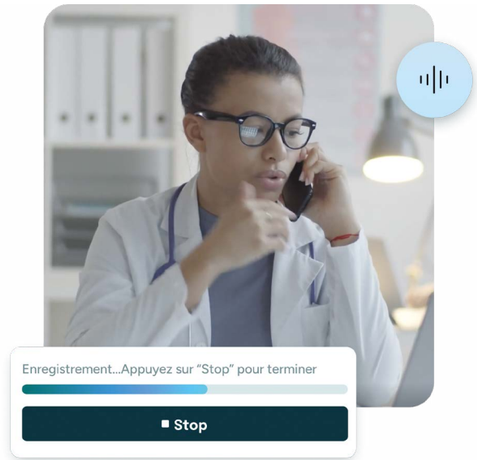
Infinite combinations for more freedom

Askara

Your voice-led dental assistant

Your voice-led dental assistant

ASKARA AI IS A VIRTUAL ASSISTANT THAT AUTOMATES CREATION OF YOUR CLINICAL DOCUMENTS



BENEFITS

- **Save time**: up to **8 hours saved a week** thanks to dictation or automatic transcription of the consultation.
- **Practice integration**: works on all browsers, integration with Julie and Logos.
- **Secured data hosted in France**: Strict respect of regulations (HDS servers in France, health data, GDPR, ISO 27001, etc.).

TWO MODES OF USE

- **Active Consultation**: takes note in real time on your behalf during your consultation. Followed by automatic creation of your reports and documents.
- **AI Dictaphone**: a vocal recording = a full document in under a minute.

GENERATION OF ALL YOUR DOCUMENTS

- **Automated CBCT reports**: compliant, ready to archive reports.
- **Implant operative reports**: with integrated traceability and implant passport included.
- **Patient and correspondents letters**: written in seconds.
- **Prescriptions & SmartNotes**: prescriptions and automatic consultation summary, ready to place in your patient record.

FIND OUT MORE +

iTero

Intraoral cameras **rapid, precise** and easy to use

- Ultra-rapid scans
- High precision
- Advanced ergonomics
- Full digital integration

ITERO LUMINA™

Intraoral scanner

Thanks to the partnership between **iTero** and **Global D** you will receive **customised assistance**, training, technical support and tailored financing solutions.

To check product availability in your country, please contact your designated representative.

Manufacturer: Align

MODJAW™

Mandibular dynamics

MODJAW 4D. This pioneering technology enables you to directly integrate the real mandibular movements of your patients on 3D digital twins, providing great precision during your treatments.

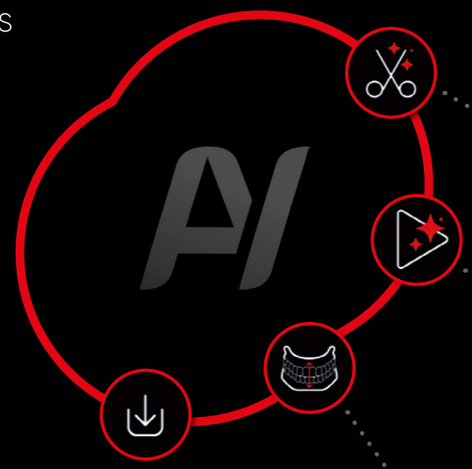
ADVANTAGES

- Rapid, precise capture
- Visualisation in real time
- Advanced simulation
- Extensive compatibility

Sphere

OPTIMISE YOUR DENTIST-LABORATORY COLLABORATION

NEW FUNCTIONALITIES
OPTIMISED BY AI



CROP MOTION *(patent pending)*
Allow AI to select the most relevant sequences for your design

GENERATION OF MOVEMENTS IN JUST ONE CLICK *(patent pending)*
Generate mandibular movements that meet the specific anatomical and functional needs of your patient

VIRTUAL MOCK-UP TEST
(patent pending)
Change vertical dimension and test the aesthetic wax-up virtually

EXPORT OF MOVEMENTS

To check product availability in your country, please contact your designated representative.

Manufacturer: MODJAW

Planning & guided surgery

Implant positioning to suit the prosthesis **durability criterion**

- Sufficiently **thick**, **vascularised** bony septa
- **Vertical placement** that matches the **periodontal biotype** and the **prosthetic plan**
- Number, distribution and **positioning of mechanically reliable implants**
- An **emergence axis** that matches the **prosthetic plan**

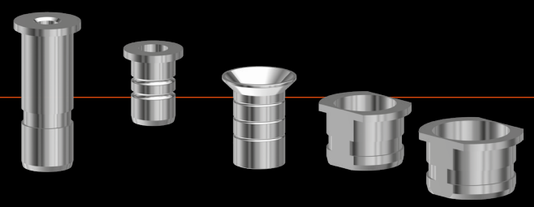
All **Global D** dental implants: **In-Kone®**, **NR**, **ST** & **WD** and **twinKon®**, as well as a wide range of prosthetic digital components, are in most implant planning software, to simplify the production of the temporary prosthesis by your clinical dental technologist:

BlueSkyPlan.com Powered by BlueSkyBio.com · dental wings coDiagnostiX™ · smop powered by swissmeda · RealGUIDE™ UNIVERSAL OPEN SYSTEM · Planmeca Romexis software · SICAT · exoplan · 3shape IMPLANT STUDIO

*The list of compatible software changes regularly, so please contact **Global D** if the software you use is not listed in this document.*

Global D offers a range of sleeves adapted for the **pilot surgical guides** or **full guides** as well as for the **pins** and **screws:**

FIND OUT MORE +



Staged guided surgery

A **SIMPLE**, **DIGITAL**, **REPRODUCIBLE** PROTOCOL **FOR IMMEDIATE LOADING**

OLYMP PROTOCOL

THE CONCEPT

FULL ARCHES with residual teeth (**at least 3**) or **complete edentation**

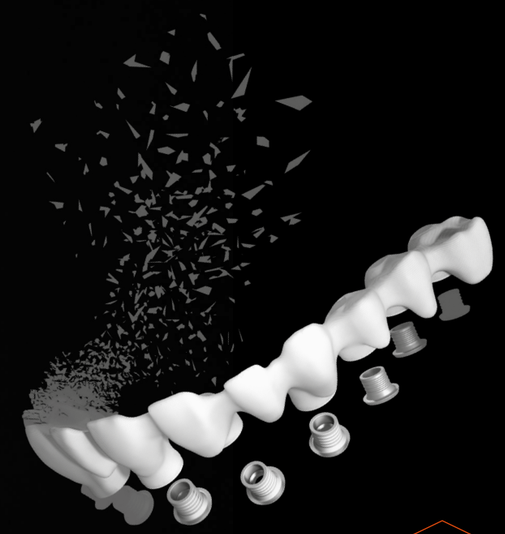
GUIDED SURGERY with **screw-retained** implant holders

IMMEDIATE LOADING with **temporary** prosthesis

FIND OUT MORE +

Digital prosthesis solutions

DIGITAL PROSTHESIS



DENTIST

GLOBAL D

LABORATORY

Your clinical skill

Preservation of peri-implant tissue capital. Durability of rehabilitations.

Prosthetic skills

Prosthesis customised using CAD/CAM or conventional prosthesis. Preservation of prosthetic interfaces.

Our industrial skill

High-tech manufacture of implantable medical devices. Customised assistance for dentists and prosthesis laboratories.

Once the optimal implantation conditions are satisfied, **the prosthetic restoration** should ensure optimal preservation of **the health and stability of the peri-implant tissue capital**.

Quality of assembly seal and stability, passivity of frameworks, choice of prosthetic materials, occlusal adjustment and maintenance of restorations are all key factors for the success of prosthetic integration in the long term.[4]

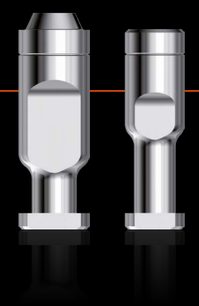
Impressions & printed models

2 in 1 digital coping

Global D digital impression copings can be used with intraoral cameras for taking optical impressions in the mouth and with desktop scanners for the digitisation of plaster models in the laboratory. They are made of anodised titanium and can generally be used without powdering. They can be clipped as direct implants for **In-Kone®** and **twinKon®**

Our implant libraries for the main impression and design software packages are available on request.

The **In-Kone®**, **ST** & **WD** platform and **twinKon®** range copings are available in direct implant indexed versions, with or without fixing screws, for the design and production of customised abutments or screw-retained crowns, and in conical abutment versions for the design and production of implant bridges and bars.



Digital analogues

The latest versions of implant analogues and abutments can be used in the printed models. They are easily identified by the groove at the top.

FIND OUT MORE +

Ref: DACI and DAIINK

Our customised prosthesis solutions

Single & multiple titanium bases

Global D titanium bases are designed to enable the production of customised abutments, screw-retained teeth, implant bridges and bars with the best possible mechanical resistance: **Global D** recommends combining the titanium base with the superstructure.

Single bases can be adjusted by 1 to 2 mm in height, particularly in **CAD** software design (computer-aided design; coronal height of 3 mm can be obtained on the screen).

Titanium bases on conical abutments are available for the manufacture of personalised bars and bridges in numerous materials.

Blanks or pre-milled blanks

Blanks (or pre-milled blanks) designed and manufactured by **Global D**, indicated for the manufacture of customised abutments as single or multiple cement-retained prostheses, are guaranteed for our connections.

They enable customised titanium abutments to be made by the laboratory (subject to appropriate equipment) with connections guaranteed to comply with our industrial machining specifications.

Global D titanium blanks are available for **In-Kone®, ST** & **WD platform** and **twinKon®** implants.

FIND OUT MORE +

Global D **Compliance** program

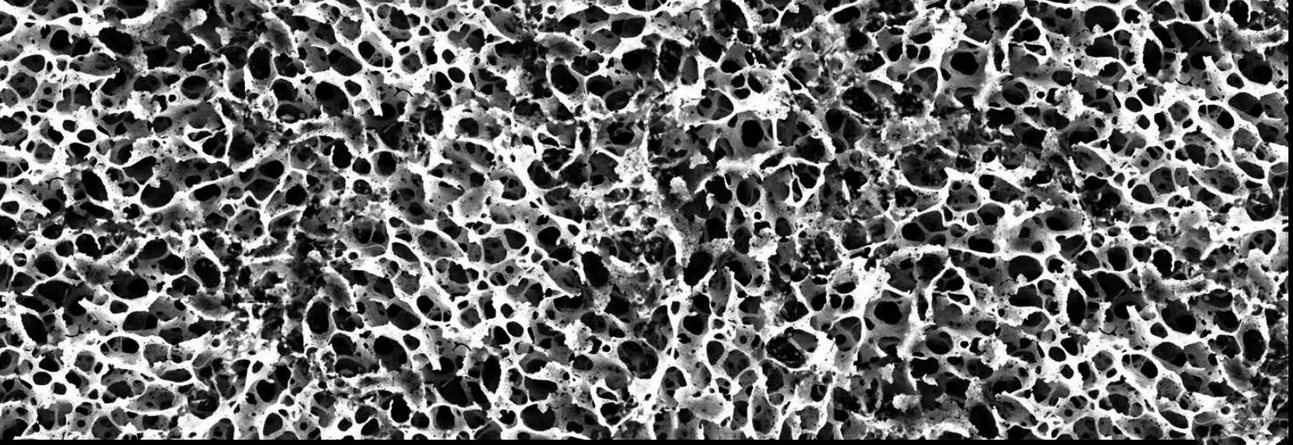
Since 2015, Global D has offered the **"Global D Compliance"** integrated programme in partnership with **WORKXSHAPE**.

This programme brings a new vision of in-laboratory machining based on geometries developed by Global D in terms of shape and tolerances, ensuring reproducible production.

The 3D design of connections for **conical abutments** directly from Global D is included in the implantology module of **WORKXSHAPE**.

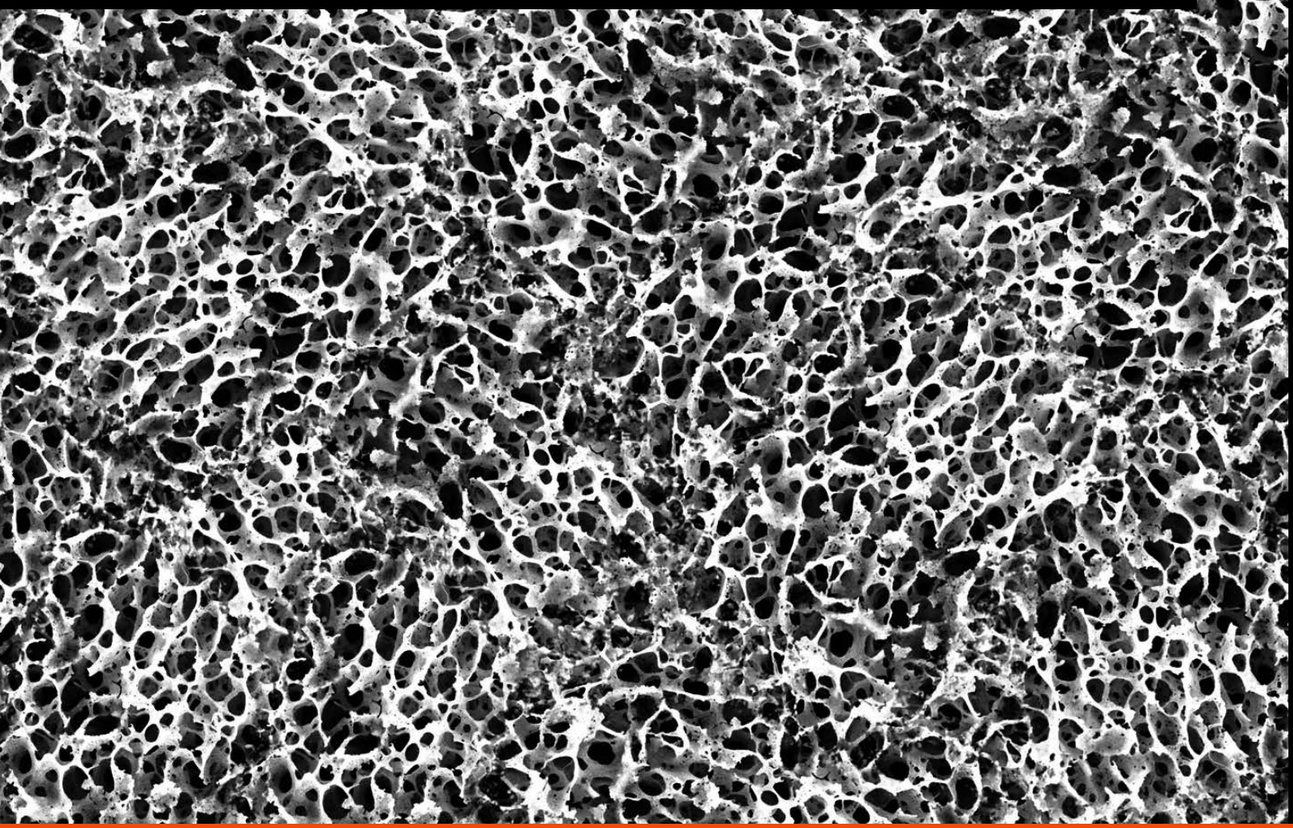
A Compliance programme charter is provided to users, who undertake to apply the protocols on manufacturing and inspection and on the purchase of original Global D prosthesis parts.

WORKXSHAPE
WORKNC DENTAL®



Regeneration

Staying ***natural***

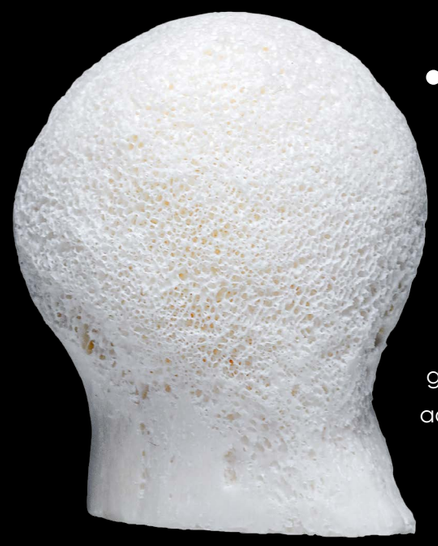


BIOBank
L'OS HUMAIN PRÉSERVÉ ET RÉGÉNÉRÉ

BIOBank is the first French bone allograft bank[9], and is an independent enterprise which has ISO 13485 certification, and has been applying its expertise in the service of healthcare for over **20 years**.

Authorised by the **ANSM** (French National Agency for the Safety of Medicines and Health Products), the society assures all activities from the tissue bank, from the collecting of femoral heads and tibiofemoral cuttings to the transformation of bone grafts.

To check product availability in your country, please contact your designated representative.



BIOBank

The femoral heads and tibiofemoral cuttings used by **BIOBank** are exclusively from rigorously selected living donors.

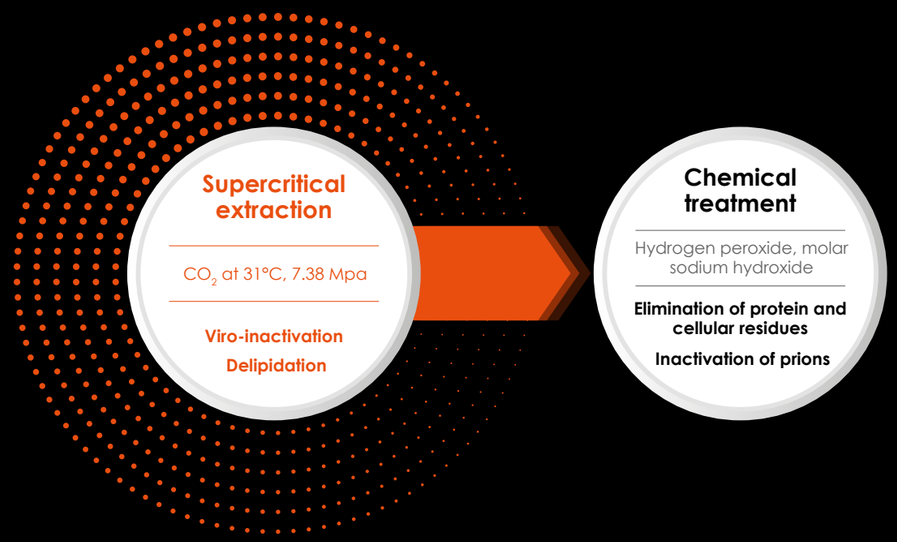
After checking the weight and weight/size ratio, ensuring high bone density, (especially for geometric forms) the bone tissue is then treated according to the Supercrit® procedure.

Supercrit®

THE TREATMENT PROCEDURE

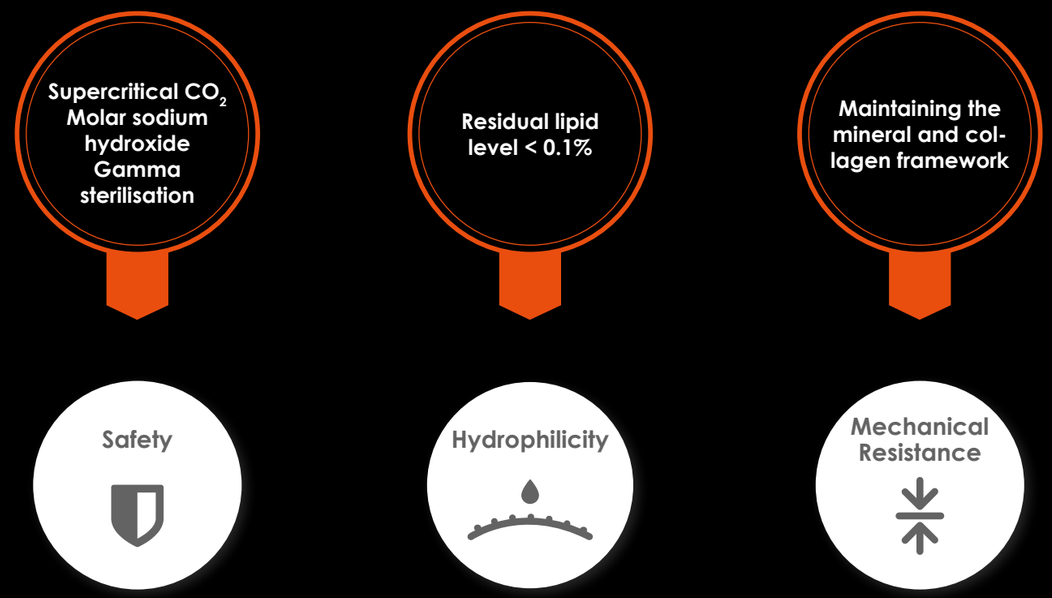
The **supercritical CO_2** treatment which is applied to the bone tissue is known for its delipidating efficacy and its capacity to **preserve the bone matrix**.

By incorporating an anti-prion step and gamma radiation sterilisation, this procedure ensures the **viral safety and sterility of products.**



- **Safety:** strict donor selection, validated viro-inactivation on common and emerging viruses[10],[11],[12],[13] and 25 kGy gamma sterilisation.
- **Residual lipid level < 0.1%[14]:** hydrophilicity, ease of use of products.
- **Respect of the mineral and collagen framework** to maintain the natural mechanical resistance of bone[15],[16],[17].

MAIN ADVANTAGES



BIOBank **bone powders**

BIOBank bone powders are available in two different compositions:

100% cancellous bone powder or a 50% cancellous bone / 50% cortical bone mixture. The first will be preferred for fillings with multiple walls and zones with good vascular support.

The cortical-cancellous bone powder will be preferred in cases where a longer remodelling time is desired while maintaining greater volume: cases of guided bone regeneration and sinus grafts.

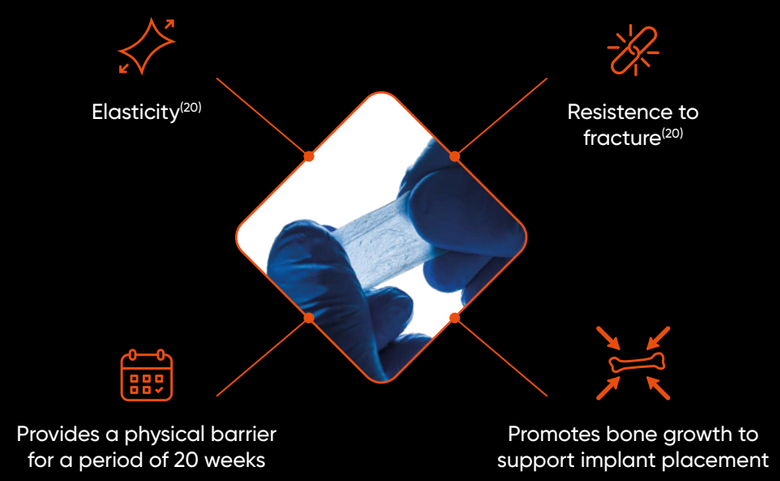
INDICATIONS

- Guided Bone Regeneration (**GBR**)
- **Peri-implant** filling with delayed implant functioning
- **Post-extraction** filling
- **Cystic cavity** filling
- **Sinus** lift filling
- **Osteotomy** filling

BIOBank **Cover®** **GBR** membrane

BIOBank Cover® is a membrane derived from highly purified porcine tissues using controlled and standardised manufacturing processes. Composed of a network of collagen and elastin fibres, it is non-crosslinked and non-oriented, facilitating its positioning.

Thanks to its slow resorption time, over a period of 20 weeks[18],[19], the **BIOBank Cover®** membrane provides a barrier effect against the interposition of soft tissues in the space created as part of guided bone regeneration protocols. The membrane's fibrous network provides mechanical stability and prevents migration of the graft bone material.



BIOBank **Synergy®** 100% natural putty

BIOBank Synergy® is a 100% natural putty, the result of over 10 years of R&D and a globally patented manufacturing process.

MAXIMUM HEALING

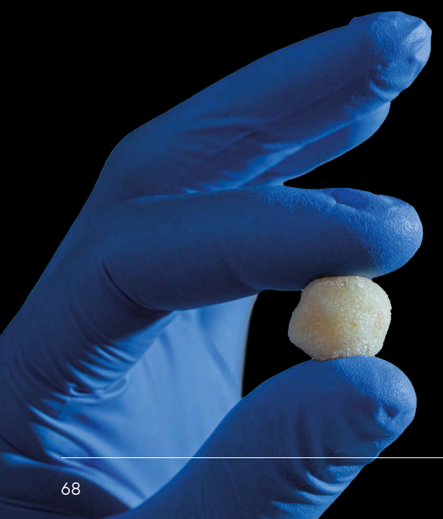
- Residual lipid level < 0.1%*
- Collagen and minerals preserved with increased exposure of collagen which stimulates cellular adhesion and bone regeneration[21]

REDUCED INFLAMMATION

- 100% natural excipient with the texture of putty.
- Improved differentiation of macrophages to promote regeneration[21].

EASE OF USE

- Ready-to-use format with no prior preparation step.
- Packaged in syringes for direct application to the graft site.
- Cohesive malleable structure which adapts to the bone defect.



INDICATIONS

- Peri-implant filling
- Alveolar preservation
- Sinus filling

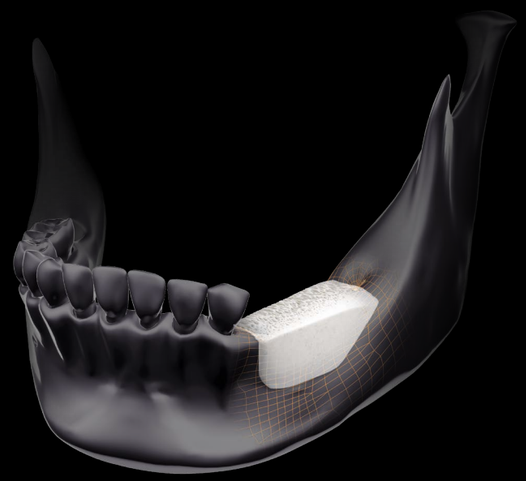
*Manufacturer's data.

Geometric forms

The range of geometric forms specially designed for oral and dental surgery is used as a substitute for autologous bone samples.

PRODUCTS AND INDICATIONS

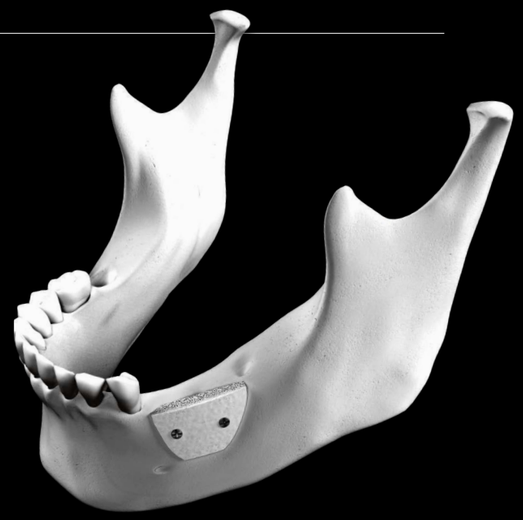
- Cortical-cancellous plates: onlay grafts
- Cortical bone slices: formwork techniques
- Cancellous block: segmental osteotomy fillings



A CUSTOM GRAFT CREATED FROM THE PATIENT SCAN ENABLES

- Improved planning of the bone graft
- Reduced surgical time
- Improved graft / recipient site matching
- Ease of osteosynthesis and improved graft immobilization
- Optimised osteoconduction

GRAFTEK* graft stabilisation



AVAILABLE IN SEVERAL DIAMETERS AND LENGTHS, GRAFTEK SELF-DRILLING SCREWS* AND COMPRESSION SCREWS PROVIDE RELIABLE FIXATION IN ALL CLINICAL SITUATIONS.

SELF-DRILLING SCREWS

- **Thread:** self-drilling for direct insertion
- **Colour coded** for quick identification
- Excellent **stability** during screw tightening

COMPRESSION SCREWS

- Designed to provide **optimal graft compression**
- Part of **neck non-threaded** to encourage **proper placement**

ADVANTAGES

- Screw retention on screwdriver shaft
- Ergonomically designed screwdriver handle
- Screwdriver is easy to manipulate with one hand

CAPI: GRAFTEK kit

*The self-drilling screws used by the GRAFTEK range are from the Minitek, Microtek and Ortrautek ranges.
Hence, it is these brand names which appear on the packaging, not GRAFTEK.

(1) Prosthetic gap and microbial leakage

- Kano et al. A classification system to measure the implant-abutment microgap. Int. J. Oral Maxillof. Impl. 2007; 22:879-885.
- Dibart et al. In vitro evaluation of the implant-abutment bacterial seal: The lockin taper system. Int. J. Oral Maxillof. Impl. 2005;20:732-737.
- Gross M et al. Microleakage at the abutment-implant interface of osseointegrated implants. A comparative study. Int. J. Oral Maxilof.Impl. 1999; 14:94-100.
- Quirynen M et al. Microbial penetration along the implant components of the branemark system. An in vitro study. Clin Oral Impl. Res. 1994; 5:239-244.
- Yuya Sasada. Implant-Abutment Connections: A Review of Biologic Consequences and Peri-implantitis Implications. Int. J. Oral Maxillof.Impl. 1304 Volume 32, Number 6, 2017.
- Hermann et al. Influence of the size of the microgap on crestal bone changes around titanium implants. A histometric evaluation of unloaded non submerged dental implant. A radiographic in the canine mandible. J periodontal. 2001; 72: 1372-1383.
- King GN et al. Influence of the size of the microgap on crestal bone level in non-submerged dental implant. A radiographic study in the canine mandible. J peridontol. 2002; 73: 1111-1117.
- Hermann et al. Factors influencing the preservation of the peri-implant marginal bone. Implant Dent. 2007; 16: 165-175.
- Ericsson I et al. Different types of inflammatory reactions in peri-implants soft-tissues. J Clin Periodontol 1995; 22: 255-261.
- Ericsson I et al. Radiographical and histological characteristics of submerged ans non-submerged titanium implant. An experimental study in the labrador dog. Clin Oral Impl. Res. 1996; 7: 20-26.
- Hermann et al. Biologic width around one and two-piece titanium implants. Clin. Oral Impl. Res. 2001;12: 559-571.
- Broggini N. et al. Persistent acute inflammation at the implant-abutment interface . J. Dent. Res. 2003; 82: 232-237.
- Broggini N. et al. Peri implant inflammation defined by the implant-abutment interface . J. Dent. Res. 2006; 85: 473-478.
- Mishra SK Microleakage at the Different Implant Abutment Interface: A Systematic Review, J. Clin. Diagn. Res. 2017 Jun; 11(6): ZE10–ZE15.

(2) Conical interface stress

- Luca Fiorillo Finite Element Method and Von Mises Investigation on Bone Response to Dynamic Stress with a Novel Conical Dental Implant Connection. Hindawi BioMed Res. Intern. Volume 2020, Article ID 2976067, 13 pages.
- Tanja Rack et al. An In Vitro pilot study of abutment stability during loading in new and fatigue loaded conical dental implant using synchrotron-based radiography. Int. J. Oral Maxilof. Impl. VOL 28, Number 1 2013.
- Zipprich H et al. A new experimental design for bacterial microleakage investigation at implant-abutment interface: an in vitro study. Int.
- J. Oral Maxillo. Impl. 2016; 31:37-44.
- Zipprich H et al. The micromechanical behavior of implant-abutment connections under a dynamic load protocol. Clin. Impl. Dent Rel. Res; 2018 Oct;20(5):814-823.

(3) Implant surface finish

- Al Nicolas-Silvente. Influence of the Titanium Implant Surface Treatment on the Surface Roughness and Chemical Composition. Mat. Impl. Dent. And Reg. Med. DOI: 10.3390/ma13020314.
- Albrektsson T, Wennerberg A Oral implant surfaces: Part 1--review focusing on topographic and chemical properties of different surfaces and in vivo responses to them. Int J Prosthodont. 2004 Sep-Oct; 17(5):536-43.
- Elias CN, Meirelles L. Review Improving osseointegration of dental implants. Expert Rev Med Devices. 2010 Mar; 7(2):241-56.
- Wennerberg A, Albrektsson T . Effects of titanium surface topography on bone integration: a systematic review. Clin Oral Implants Res. 2009 Sep; 20 Suppl 4():172-84.
- Wennerberg A, Albrektsson T.On implant surfaces: a review of current knowledge and opinions. Int J Oral Maxillofac Implants. 2010 Jan-Feb; 25(1):63-74.
- Dirk U. Duddeck. On the Cleanliness of Different Oral Implant Systems: A Pilot Study. J. Clin Med. 2019, 8, 1280; doi:10.3390/jcm8091280.
- Bolle C, Gustin MP, Fau D, Boivin G, Exbrayat P, Grosgogeat B. Soft Tissue and Marginal Bone Adaptation on Platform-Switched Implants with a Morse Cone Connection: A Histomorphometric Study in Dogs. The International Journal of Periodontics & Restorative Dentistry. 2016;36(2):221–228. DOI : 10.11607/prd.2254.

(4) Peri-implant mucosa

- Nozawa T. et al. Biologic height-width ratio of the buccal supra-implant mucosa. Eur. J. Esthet. Dent. 2006, 1, 208–214.
- Farronato D. Ratio between Height and Thickness of the Buccal Tissues: A Pilot Study on 32 Single Implants. Dent. J. 2019, 7, 40; doi:10.3390/dj7020040.
- G. Finelle. Peri-implant soft tissue and marginal bone adaptation on implant with non-matching healing abutments: micro-CT analysis.

(5) Bone behaviour

- Alberto Monje. The Critical Peri-implant Buccal Bone Wall Thickness Revisited: An Experimental Study in the Beagle Dog The Int. J. Oral Maxillo. Impl. 2019 DOI: 10.11607/jomi.7657.
- D. Boskaya. Evaluation of load transfer characteristics of five different implants in compact bone at different load levels by finite element analysis. J. Prosthet. Dent 2004 Dec; 92(6):523-30.
- Dr C. Bolle. Soft-tissue and marginal bone-adaptation on platform switched implants with a morse cone connection: a histomorphometric study in dogs. Inter. J. Peiod. Rest. Dent. 2016, 36 (2), pp.221-228.

(6) Drs Patrick Moheng, Philippe Roche-Poggi, Romain Castro, Pierre Moheng, Laboratoire Guillaume Pénaranda Implant Global D In-Kone® SA² -Survival rate after 5 years - Implant magazine 2019.

(7) Jean-Pierre Axiotis, Paolo Nuzzolo, Carlo Barausse, Roberta Gasparro, Paolo Bucci, Roberto Pistilli, Gilberto Sammartino, Pietro Felice. One-Piece Implants with Smooth Concave Neck to Enhance Soft Tissue Development and Preserve Marginal Bone Levels: A retrospective Study with 1 to 6 year Follow-up Hindawi - Biomed Research International - Volume 2018, Article ID 2908484, 7 pages.

(8) Study in beagles carried out by Drs C. Bolle 1-2 , P. Exbrayat 2 , M-P. Gustin and B. Grosgogeat 1-2 in collaboration with Dr D. Fau 3 (Analysis method: histology, undecalcified bone, cutting-grinding).

(9) Biomedicine Agency Data.

(10) Viral inactivation of human bone tissue using supercritical fluid extraction., Fages J., Frayssinet P., Poirier B., Barbier Y., Joffret ML., Larzul D., Majewski W., Bonel G., ASAIO Journal 1998, 44 : 289-293.

(11) Evaluation of the viral safety level during manufacturing process of human bone grafts. Evaluation carried out by using the whole femoral head, Pasteur-Texcell, Report number : 250/01/5375/01, 2003.

(12) Viral clearance evaluation associated to hydrogen peroxide (H2O2) and washing treatments of the purification process of bone grafts from human origin. Evaluation carried out by using the whole femoral head, Texcell, Report number : 250/02/5870-A1/01,2022.

(13) Viral clearance evaluation associated to sodium hydroxide (NaOH) and washing treatments of the purification process of bone grafts from human origin. Evaluation carried out by using the wholefemoral head, Texcell, Report number: 250/02/5871-A1/02, 2022.

(14) Use of Supercritical CO2 for Bone Delipidation. Fages J., et al. 1994. Biomaterials, 15(9):650-656.

(15) Comparative ultrasound evaluation of human trabecular bone graft properties after treatment with different sterilization procedures. Vastel L., Masse C., Mesnil P., et al. Journal of Biomedical Materials Research, 2009, Vol. 90, N°1, p. 430-437.

(16) Effects of gamma irradiation on mechanical properties of defatted trabecular bone allografts assessed by speed of sound. Vastel L., Masse C., Mesnil P., et al. Cell and Tissue Banking, 2007, Vol. 8, p.205-210.

(17) Effects of a supercritical CO2 based treatment on mechanical properties of human cancellous bone. Mitton D., Rappeneau J., Bardonnet R. European Journal of Orthopaedic Surgery & Traumatology, 2005, N°13, p.351-356.

(18) Horizontal Ridge Augmentation with a Novel Resorbable Collagen Membrane: A Retrospective analysis of 36 Consecutive Patients. Wessing B, Emmerich M, Bozkurt. Int J Periodontics Restorative Dent. 2016; 36(2): 179-87.

(19) Differences in degradation behaviour of two non-crosslinked collagen barrier membranes: an invitro and in vivo study. Bozkurt A, Apel C, Selhaus B, Wessing B, Hilgers R-D & al. Clin Oral Implants Res. 2014; 25(12): 1403-11.

(20) Tensile Properties of Three Selected Collagen Membranes. Perry Raz ,1 Tamar Brosh,2 Guy Ronen, 3 and Haim Tal1. BioMed Research International Volume 2019, Article ID 5163603.

(21) P. Tournier et al. (2021) A partially demineralized allogeneic bone graft: in vitro osteogenic potential and preclinical evaluation in two different intramembranous bone healing models. Scientific Reports, 11:4907.

Our publications

Early Periimplant Tissue Healing on 1 Piece Implants with a concave transmucosal design: A histomorphometric study in dogs. **C Bolle & coll.** , *Implant dentistry / Vol. 24, Number 5, 2015.*

Soft tissues and marginal bone adaptation on platformed switched implant with a morse cone connexion: a histomorphometric study in dogs. **C Bolle & coll.**, *The International Journal of Periodontics & Restorative Dentistry . Vol 36 Number 2, 2016.*

One Piece Implants with Smooth Concave Neck to Enhance Soft Tissue Development and Preserve Marginal Bone Levels: A Retrospective Study with 1 to 6 Year Follow Up. **JP Axiotis & coll .,** *Hindawi Bio Med Research International Volume 2018, Article ID 2908484, 7 pages.*

Posterior jaws rehabilitated with partial prosthesis supported by 4 mm x 4 mm or by longer implants: four month post loading results from a multicenter randomized controlled trial. **M Esposito & coll.**, *Euro J Oral Implantol . 2015; 8 (3): 1 10.*

Posterior jaws rehabilitated with partial prosthesis supported by 4 mm x 4 mm or by longer implants: One year post loading results from a multicenter randomized controlled trial.
P Felice & coll., *Euro J Oral Implantol . 2016; 9 (1): 35 45.*

Standard drilling versus ultrasonic implant site preparation: A clinical study at 4 weeks after insertion of conical implants.
C. Makary & coll., *Implant Dentistry , Vol. 26 Number 4, 2017.*

Four year post loading results of full arch rehabilitation with immediate placement and immediate loading implants: a retrospective controlled study. **A Simonpieri & coll.**, *Quintessence International Volume 48, Number 4, April 2017.*

Finite Element Method and Von Mises Investigation on Bone Response to Dynamic Stress with a Novel Conical Dental Implant Connection.
Luca Fiorillo & coll., *Hindawi BioMed Research International Volume 2020, Article ID 2976067, 13 pages.*

The **Global D** products presented here are class I, Ir, IIa and IIb medical devices carrying the EC mark in conformance with Directive 93/42/EEC or with European Regulation 2017/745. They are intended for healthcare professionals in the field of dental implantology or cranio-maxillofacial surgery. They are used to replace missing teeth, or for cranio-maxillofacial bone fixation and stabilisation during osteosynthesis. In France, only cranio-maxillofacial implants are covered by the social security reimbursement list. The medical devices presented here may not be available for sale in every country. If you have any questions, or would like any additional information, please contact the. **Global D**. Global D sales team. Please read the instructions before using our products. The instructions are available in the cloud. A QR code and URL link are included on the device label. Paper instructions are nevertheless available upon request to quality@globald.com, at no additional fee, within 7 days.

BIOBank Cover* is a class III single-use sterile medical device. This medical device is a regulated healthcare product carrying the EC mark (EC 2797). Read the instructions in the leaflet carefully. Matricel GmbH BIOBank.

The Bien-Air products presented, Global Display and its set, are medical devices distributed by Global D, these products are manufactured and/or distributed by Bien-Air.
As Global D is a distributor of Bien-Air products, see the www.bienair.com website for further information on technical characteristics and general conditions.

The iTero products presented are medical devices distributed by Global D, these products are manufactured and.or distributed by iTero - Align. As Global D is a distributor of Align products, see the https://www.itero.com/fr and https://www.aligntech.com website for further information on technical characteristics and general conditions.

The Modjaw products presented are medical devices manufactured and distributed by Modjaw. For further information on technical characteristics and general conditions, see Modjaw and the website https://modjaw.com/fr/solution-all-in-one.html

SCHEDULE AN APPOINTMENT

FIELDS OF ACTIVITY

- Implantology
- Oral surgery
- Pre-implant surgery
- Craniomaxillofacial surgery
- Reconstructive surgery
- Facial trauma surgery
- Cancer surgery
- Orthodontics
- Bone Graft
- Orthognathic surgery
- Training

Find all our solutions on **www.globald.com**

Global D
ZI de Sacuny
118 Avenue Marcel Mérieux
Brignais - France
Tel. +33 (0)4 78 56 97 00
Fax +33 (0)4 78 56 01 63
www.globald.com

Products **manufactured in FRANCE**

LA FRENCH FAB

DC-IMPLANTO-EN-ED1-26
CATALOG-0174-V02-01