IMPLANTS 2017 CONFERENCE
PARIS | FRANCE
Thursday, June 8th 2017
Élysées Biarritz conference center

Two tutorials on the orthopaedic market and contract manufacturing
Keynote speakers from major companies

www.implants-event.com
Implants is a high-level conference for contract manufacturers and orthopaedic companies. It focuses on changes in manufacturing techniques and purchasing strategies. The focal point will be how orthopaedic contract manufacturers can position themselves in the face of a rapidly changing marketplace due to new technologies, materials, regulations and the emergence of the BRIC countries.

More than 200 top level decision makers attended the June 2016 conference in Paris for a full day of learning and business networking.

The 2017 conference will be held in Paris on June 8th and will feature the following topics:

- Supply Chain & Contract Manufacturing: How OEMs and their Contract Manufacturers can collaborate to drive innovations
- Robotic assisted, navigation & minimally invasive surgery: Applications, Limitations, and Impact on the orthopaedics Industry
- Quality and Regulatory Issues: Dealing with Innovation and Costs In Orthopedics
- Additive Manufacturing: advancement, realities and perspectives in Orthopaedics. Special Focus: Regulatory requirements applied to Additive Manufacturing

Join us at Implants 2017 in Paris!

Ali MADANI,
CEO of Avicenne Consulting and Founder of the IMPLANTS event

LOCATION:

ELYSEES BIARRITZ CONFERENCE CENTER
22-24 Rue Quentin Bauchart
75008 Paris (France)
Subway: Georges V, Charles de Gaulle-Etoile, Franklin Roosevelt
RER A: Charles-de-Gaulle-Etoile
MEET THE MAIN PLAYERS IN THE ORTHOPAEDIC MARKET

MANAGERS FROM ORTHOPAEDIC COMPANIES AND CONTRACT MANUFACTURERS WILL ANSWER THE FOLLOWING QUESTIONS:

- What are the general trends and changes in orthopaedics contract manufacturing? Are the major OEMs relying more on contract manufacturing?
- What are the key growth factors and barriers to development for orthopaedics contract manufacturing?
- What roles will the BRICs (especially China, India and Brazil) and Central European countries play in the future of contract manufacturing?
- Which products have priority? What are the risks for contract manufacturers in developed countries?
- What is the impact of regulations and certifications? Will this mean more inspections and audits, and stricter controls for contract manufacturers?
- What are the needs of orthopaedic OEMs? One-stop shopping, shared responsibilities, co-invention and co-development agreements, etc.
- What is the significance of providing raw materials and associated services?
- What are the long-term trends affecting the casting, forging, machining, coating and finishing processes?
- How will the availability of generic instrumentation affect spine and trauma surgery in low-cost countries?
- How has contract manufacturing of the coating process changed?
- How do the major OEMs work with product markings, packaging and sterilization?

SPECIAL FOCUS ON:

- Robotic assisted, navigation & minimally invasive surgery
- Additive Manufacturing : advancement, realities and perspectives in Orthopaedics

More than 200 top level decision makers attended the 2016 conference

In 2016, the IMPLANTS conference celebrated its 12th anniversary. The 2016 conference attendees were from the following locations:

- France 43%
- United States 12%
- Germany 12%
- United Kingdom 8%
- Switzerland 6%
- Italy 5%
- Ireland 4%
- Europe and ROW 10%

They represented these types of companies and institutions:

- Contract manufacturer 56%
- Orthopaedic OEM 21%
- Private equities 12%
- Consulting & the Media 11%
2017 CONFERENCE PROGRAM

TUTORIALS

TUTORIAL DEVOTED TO ORTHOPAEDIC MARKET PERSPECTIVES AND MAIN ISSUES
9:00-9:30 | Ali Madani, CEO, Avicenne consulting

- Orthopaedics market: Past and current dynamics pushing to readapt, tight regulations making innovation harder to achieve, reimbursement trends and impact on orthopaedics
- Player strategies: Major players and nimble challengers. The orthopaedics paradox of size, growth and profitability
- Market forecasts: Role of new and mature products, changing the paradigm, future risks and opportunities, winners’ differentiation factors and High Value Added positions

- Orthopaedic Worldwide market historical revenues: Hip, Knee, Shoulder, Trauma, Spine, Biologics.
- Worldwide implants market by area: USA, Europe, Japan, Australia, South Korea, China, Brazil, ROW
- ASP & Procedures by area
- European players (> 100 ), market shares for each country, position, Strengths & Weaknesses
- Challengers are gaining market share Vs Majors: trends
- Drivers & limiters for orthopaedic products
- Hip growth product trends, market, dynamics, market share: Hip dual mobility, Mini hip & Shorter stem, Anterior surgical approach, Trabecular Metal, Blockbuster products (Corail, Exeter, Mueller,..)
- Knee growth product trends
- Shoulder growth product trends
- Spine growth product trends
- Focus in Europe: Germany, UK, Fr, Spain, Italy & Belgium, Switzerland, others
- Main segments and bearings detailed: cemented, cementless, hybrid, M/Pe, Cer/Pe, Ce/Ce,..
- Reimbursement and regulatory trends
- Market forecasts by 2020: data, heavy trends.
- Perspectives, main issues, trends

TUTORIAL DEVOTED TO CONTRACT MANUFACTURING
9:30-10:00 | Ali Madani, CEO, Avicenne consulting

- Contract Manufacturing market: Outsourcing trend Vs inertia of in-house,
- Player strategies: Is concentration a good response to the needs of major players?
- Organizing Contract Manufacturers – Do they evolve fast enough in relation to market needs? Critical size Vs agility and specialization Vs profitability?
- Control much of the manufacturing chain or specialize in High Value added services?
- Will Additive Manufacturing affect forging, casting and machining? Is Additive Manufacturing a relevant strategic position for Contract Manufacturers?
- 2030 Picture and Business Model for Orthopaedic Contract Manufacturing: common features and differences with aerospace & automotive contract manufacturing

- Orthopaedic market value chain in 2015: Implants, instruments, cases & trays, coating, ceramics, packaging, sterilization, other
- Outsourcing rates by capability for Majors and Challengers in 2015: Forging, casting, machining, coating, packaging, and by product-> Hip, Knee, Shoulder, Trauma, Spine, instruments for each product, cases & trays
- Orthopaedic contract manufacturing Vs home-made costs: Depuy- Synthes, Medtronic, Zimmer, Stryker, Biomet, Smith & Nephew & the Challengers: Aesculap, Lima, Tomier, Exactech, Link, Amplitude, .. and other medium-size companies
- Challengers impacting the contract manufacturing market, due to their high outsourcing rate
- Contract manufacturing market by segment: Instruments, spine & trauma machining, casting, Hip & Knee machining & Forging contract manufacturing,
- Orthopaedic contract manufacturing by customer for 2015: Depuy- Synthes, Medtronic, Zimmer, Biomet, Stryker, Smith & Nephew, Challengers
- OEM needs: data base and operating model of all Contract Manufacturing needs by OEM, volume, value
- Orthopaedic top 20 Contract Manufacturers positions, revenues, SWOT analysis,
- Contract manufacturing in Low Labor Cost Countries impact: movements for implants & instruments
- Contract manufacturing in Low Labor Cost Countries impact: cases of complex instruments Vs Generic instruments
- Contract manufacturing in Low Labor Cost Countries: Trend by 2020
- Raw material sourcing: Titanium, CoCr, Stainless Steel, PEEK, Plastics, Powders,..
- OEM facility disinvestment trends
- Additive Manufacturing for orthopaedics past, present, future
- Orthopaedic Contract manufacturing market Forecasts
- Perspectives, main issues, trends
SUPPLY CHAIN & CONTRACT MANUFACTURING: HOW OEMS AND THEIR CONTRACT MANUFACTURERS CAN COLLABORATE TO DRIVE INNOVATIONS

10:00-10:25 | Mike Miller, Vice Chairman of the Board, Orchid Orthopedic Solutions, LLC
How OEMs and their Contract Manufacturers can collaborate to drive innovations and cost control
- OEM and Contract Manufacturers collaboration: New ways for improving output while reducing costs
- OEM & Contract manufacturers Strategic Partnership: way to exploit new technologies by leveraging the contract manufacturers broad base of experience
- OEMs incentive to improve output and cost: Opening up resources by the OEM to support contract manufacturers that are introducing new and innovative processes

10:25-10:50 | Tobias W. Buck, President and CEO, Founder, Paragon Medical Inc
OEM & CMO Relationship Reality
- How global marketplace economics have conditioned OEM & CMO relational dynamics;
- How this relational dynamic will evolve;
- How the relational dynamic should address cost & risk mitigation imbalance;
- How these observations lead to effective structural alignment for both OEM & CMO

ROBotic ASSISTED, NAVIGATION & MINIMALLY INVASIVE SURGERY: APPLICATIONS, LIMITATIONS, AND IMPACT ON THE ORTHOPAEDICS INDUSTRY

11:40-12:05 | Nicolas Pivert, Restorative Therapy Group Director - Pain & Spine Business Director, Medtronic France
Robotic assisted, navigation & minimally invasive surgery: Patient outcome and value based healthcare
- Concept of Value Based HealthCare
- Minimally Invasive Surgery and Rapid Recovery after Surgery
- Robot-assisted Surgery and Navigation system: New Patient outcomes

12:05-12:30 | Patricia Lempereur, Director of Marketing and Training International, SpineGuard
Dynamic Surgical Guidance, a disruptive innovation in spine surgery and beyond
- How did Dynamic Surgical Guidance (DSG) technology emerge?
- How has DSG changed the way spine fusion surgeries are performed?
- DSG technology can make screws or even surgical robots smart
- What applications can be envisioned beyond spine with DSG technology?

QUALITY AND REGULATORY: DEALING WITH INNOVATION AND COSTS IN ORTHOPEDICS

1:45-2:10 | David W. Lown, General Manager, Musculoskeletal Clinical Regulatory Advisers, LLC ('MCRA')
How the Cost of Innovation in the USA is being affected by Regulatory, Reimbursement, Clinical & Compliance dynamics
- What forms of innovation are economically viable
- Which are the most critical pathways to regulatory and clinical approval
- How to estimate the real cost of bringing innovation to market

2:10-2:35 | Yanming Zheng, Principal Research Scientist, Smith & Nephew
Simulation of Orthopaedic Implants and global regulatory issues
- Simulation in the innovation and development of orthopaedic devices
- Global regulatory guidelines/requirements
ADDITIVE MANUFACTURING: ADVANCEMENT, REALITIES AND PERSPECTIVES IN ORTHOPAEDICS - SPECIAL FOCUS: REGULATORY APPLIED TO THE ADDITIVE MANUFACTURING

2:35-3:00 | Magnus René, CEO, Arcam Group
Additive Manufacturing for orthopaedics – from niche market to mass market!
- Metal additive manufacturing has progressed well beyond prototyping and tooling applications as it is now a fully accepted production technology.
- Organizations in medical implant markets have embraced metal AM for in-body implants in true production settings.
- Learn what’s happening today that is having a significant impact on manufacturing capabilities and understand how metal AM is positively affecting people’s lives and health through advancements with technologies like EBM.

3:30-3:55 | Gianfranco Viola, Director of Global Sales and Marketing, Eurocoating
Plasma Spray Coatings: surfacing the future
- Market Challenges in the near future: the regulatory pressure towards product safety and process control.
- Plasma Spray coatings: addressing requirements for a highly porous titanium, and how Additive Manufacturing is changing the product.
- Design for manufacturing plasma spray porous titanium: what technology has made possible.

3:55-4:20 | Friedrich Dittmann, Industry Account Manager Medical RE Export, EOS GmbH
Process validation of the 3D printing/additive manufactured part for orthopaedics
- Validation terminology
- V-model for validation
- Details on system qualification
- Details on material qualification
- Process validation case study

DISRUPTIVE INNOVATIONS & EMERGING TECHNOLOGIES IN ORTHOPAEDICS

4:20-4:45 | Ashish Shah, Vice President of R&D, Advanced Surgical and Orthopedics, Integer (Greatbatch Medical - Lake Region Medical - Electrochem)
Innovative solutions in bone cutting and preparation using disposable flexible technologies
- Design and performance of disposable flexible technology for use in trauma applications
- Using MIM for an out of the box surgically ready reaming instrument
- Method to visually determine sharpness and usability of reusable bone cutting instruments
- Material selection to enable enhanced performance
- Instrument performance based design

2016 TESTIMONIALS

“It really was an excellent event and extremely well organized.”
Matt Woods
Director of OrthoExecutive.

“It was a good conference and has moved on a lot since I first attended several years ago. For me the most useful presentations were Ali Madani’s overview of the contract manufacturing market place and hearing the perspectives of the supply base through their presentations.”
Simon Adam
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4:45-5:10 | Armando Salito, Head of Technology, Orchid Orthopedic Solutions

**New polyethylene coatings & disruptive ceramic coatings**

Titanium coating on to polymer:
- PEEK and Polyethylene have poor characteristics for cell adhesion and are prone to fibrous tissue creation for medical devices
- Porous and rough titanium coating for cell growth at the implant surface
- A new titanium porous coating for polymer materials with cell growth characteristics, to open new fields for implant design

Hard and tough anti-wear ceramic coating:
- Cobalt Chrome used for medical device implants and its limited biocompatibility and allergy concerns, both to be remedied
- Titanium implant with new generation of hard biocompatible ceramic layer featuring superior proprieties to CoCr: First results of wear and perspectives

5:10-5:35 | James Schultz, Executive Vice President Sales & Marketing, ECA Medical Instruments

**Disposable instruments : benefits & trends for orthopaedics**

- Point of view: Implants OEM
- Point of view: hospitals, distributors, healthcare reimbursement agencies and insurance companies
- Point of view: Surgeons / Patients
- Economical approach

**IMPLANT MANUFACTURERS AND EXPERTS PRESENT THEIR LAST INNOVATIONS DURING IMPLANTS 2017 CONFERENCE:**

- **3D Systems Leuven**
  - Grauwmeer 14, 3001 Leuven - Belgium
  - Tel: +32 16 94 64 00
  - medical.layerwise@3dsystems.com
  - www.3dsystems.com

- **ALPROBOTIC**
  - 88 rue de Chartreuse - 38420 Le Versoud - France
  - Tel: +33 4 76 00 01 69
  - www.alprobotic.fr

- **CERAMED / ALTAKITIN**
  - Rua José Gomes Ferreira nº 2 - Armazém 3
  - 2660-360 São Julião do Tojal - Loures - Portugal
  - Phone: +351 91 93 96 150
  - www.ceramed.pt

- **Electro Optical Systems**
  - Robert-Stirling-Ring 1, 82152 Krailling/Munich Germany
  - Tel: +49 89 893 36-2188
  - www.eos.info

**TESTIMONIALS**

“Wanted to thank you for organising a wonderful conference. It was very smoothly organised and with relevant subsectors well represented. Well done.”

**ABHINAV SINHA**
Director
Eight Roads - UK

“Thank you so much for this fantastic event!”

**Dr. Uli Sutor**
Key Account Management - Medical Industries
DMG MORI Deutschland GmbH

“I want to thank you very much for the extremely high level of the conference you held in Paris. It was a real pleasure to follow the two very informative tutorials. I also expressed my full satisfaction in the conference evaluation form.”

**Andrea L. Maurizio**
Chief of Technology
Pietro Rosa TBM
For any questions relating to the organization of the IMPLANTS 2017 conference, you can contact the organizers by email:

- **Claude Foubert**, Event Director: c.foubert@implants-event.com
- **Ali Madani**, Chairman: a.madani@implants-event.com
- **Monica Visinoni**, Conference & Sponsorship Manager: m.visinoni@implants-event.com

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