AGENDA

TITANIUM POWDER BY SANDVIK – THE ADDITIVE ADVANTAGE

13:30 - 13:45	SAFETY FIRST AND WELCOME!	Kristian Egeberg
13:45 - 14:10	INTRODUCTION TO SANDVIK – AND TITANIUM AS AN ELEMENT	Mikael Schuisky
14:10 - 14:35	TITANIUM AND NICKEL POWDER PRODUCTION BY SANDVIK	Martin Mueller
14:35 - 15:00	TITAINUM AND NICKEL POWDER BY SANDVIK – THE ADDITIVE ADVANTAGE	Keith Murray
15:00 - 15:20	SWEDISH ”FIKA”	All
15:20 - 15:40	AM-PROCESSING OF TITANIUM	Harald Kissel
15:40 - 16:10	BEAMIT – EXPERIENCE FROM AM OF TITANIUM COMPONENTS	Michele Antolotti and Martina Riccio
16:10 - 16:25	TITANIUM COMPONENTS FOR GSD E-BIKES	Zach Krapfl
16:25 - 16:40	LIGHTWEIGHT COROMILL® 390	Matts Westin
16:40 - 16:55	OSSDSIGN – IMPLANTS FOR BONE REGENERATION	Kajsa Björklund
→ 16:55 - 17:10	SWISS CENTER OF MANUF. TECHNOLOGIES FOR MEDICAL	Harald Kissel
17:10 - 17:30	SUMMARY, CONLCLUSIONS AND KEY TAKE-AWAYS	Mikael Schuisky & All
18:00	DINNER @ BRUKSMÄSSEN	All

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Swiss Center of Manufacturing Technologies for Medical Applications

Overview Presentation of the Motivation, Objectives and Set-up of the new Swiss m4m Center

Harald Kissel, R&D Manager AMC

22.10.2019

Medical 3D Printing

Today, key challenges remain unaddressed.

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Adapted design strategy in order to maximize the value of additive manufacturing in regards of time, quality and costs.

Control of all process chain parameters which influence the mechanical properties of the printed parts.

Surface finishing, in particular for parts with complex geometries.

Cleaning, in particular for parts with complex geometries.

3D Printed Medical Devices

The six process steps

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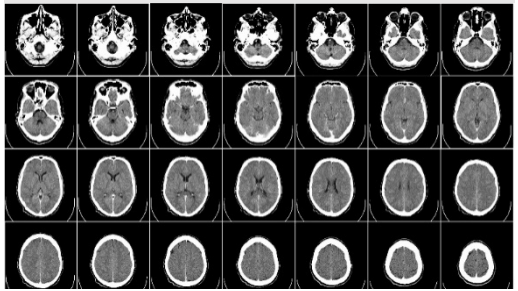
Digital Medical Imaging

Medical Image Processing



Design of Implants

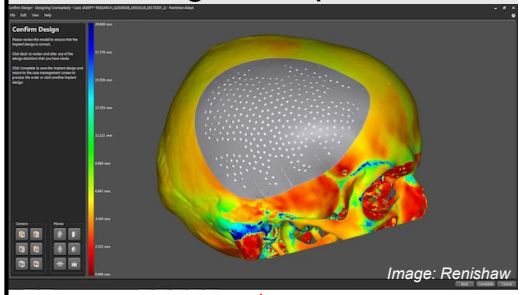


Image: Renishaw

Surgery Planning

Image: Materialise

Manufacturing of Implants

Image: Renishaw

Surgery and Implantation

Manufacturing Technologies for Patient Specific Implants

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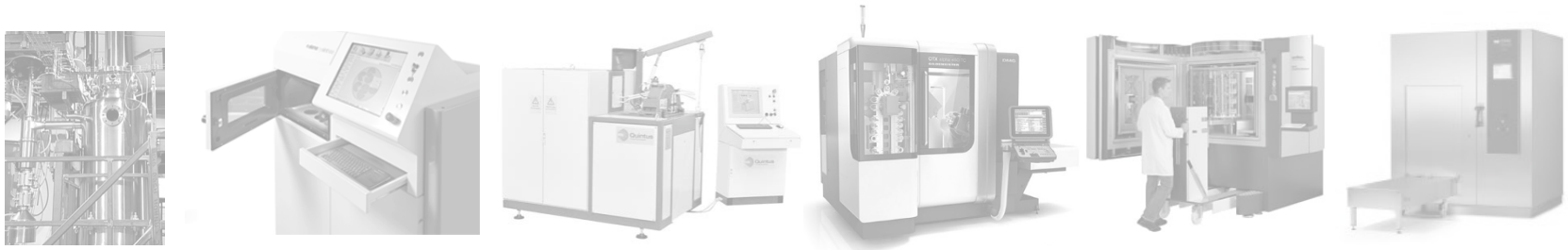


Metal Powder Gas Atomization → 3D Printing (Powder Bed) → Heat / Pressure Treatment → Machining and Polishing → Surface Coating → Cleaning and Sterilization

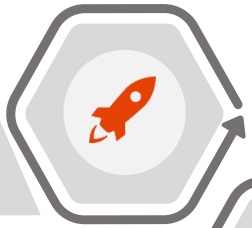
Integrated Manufacturing Line

- Start scenario with selected technology and process steps to reduce complexity
- Integrate all process steps into an ISO 13485 certified manufacturing line with full traceability and seamless software support

Services

We offer four types of services in order to address different customers needs

Use of a pilot manufacturing line for prototyping, small series or single patient-specific implants manufacturing.



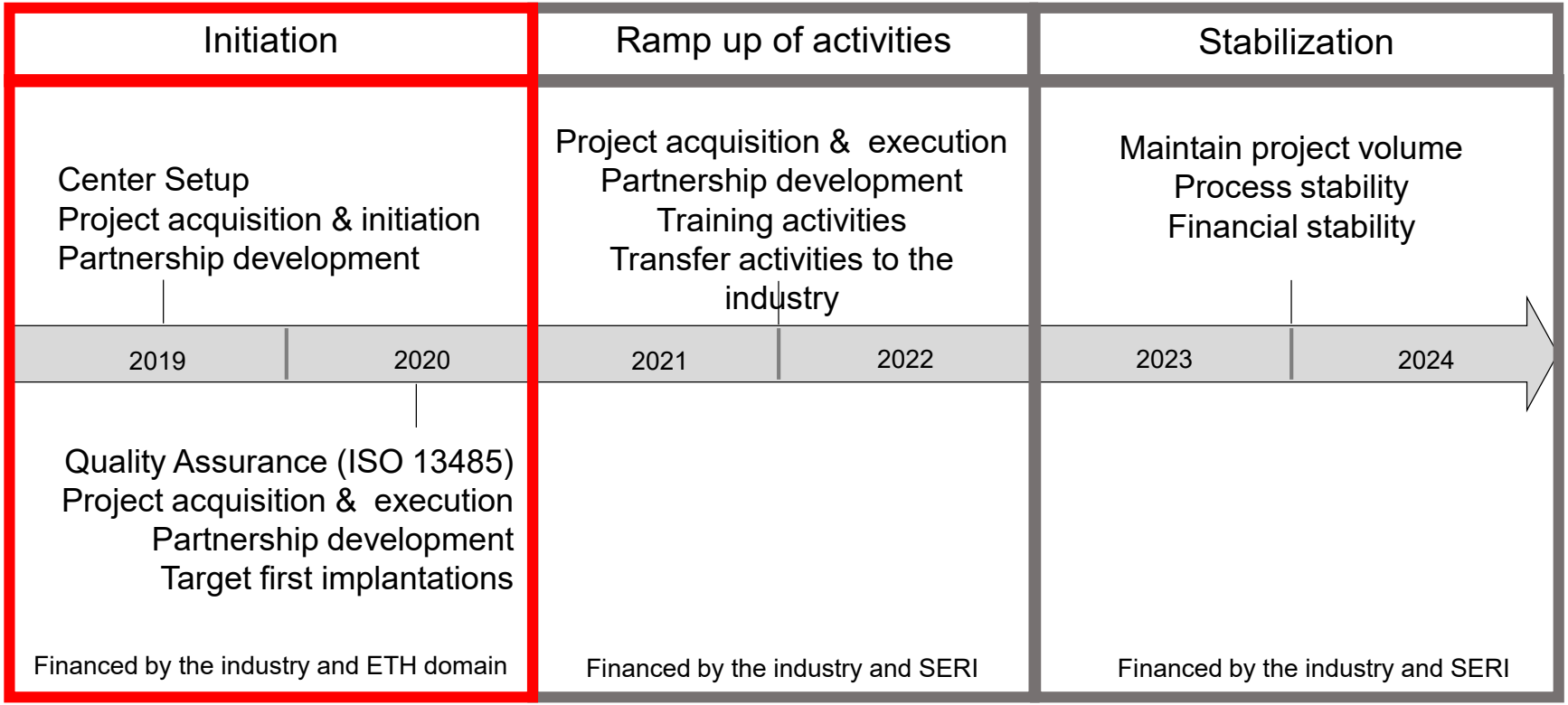
Development collaborations through partner expertise and by providing the necessary infrastructure.

Consulting and support services for Medtech companies, suppliers and healthcare professionals.

Training for scientists, students, engineers and technicians to learn about additive manufacturing.

Development Plan

Outlook for the coming 6 years for the Swiss m4m Center



m4m Partners

In-kind financing of over 3 millions for the next 6 years

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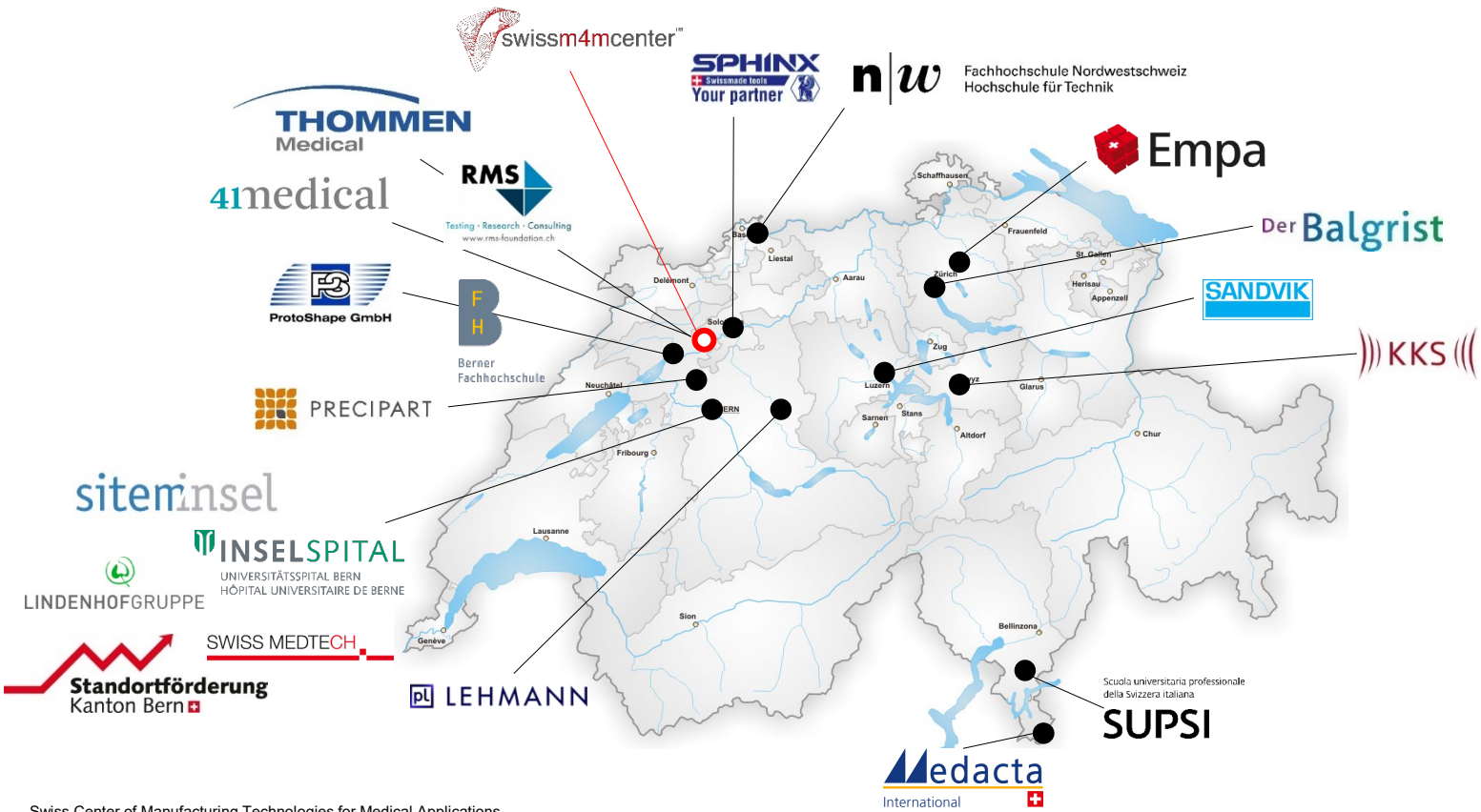

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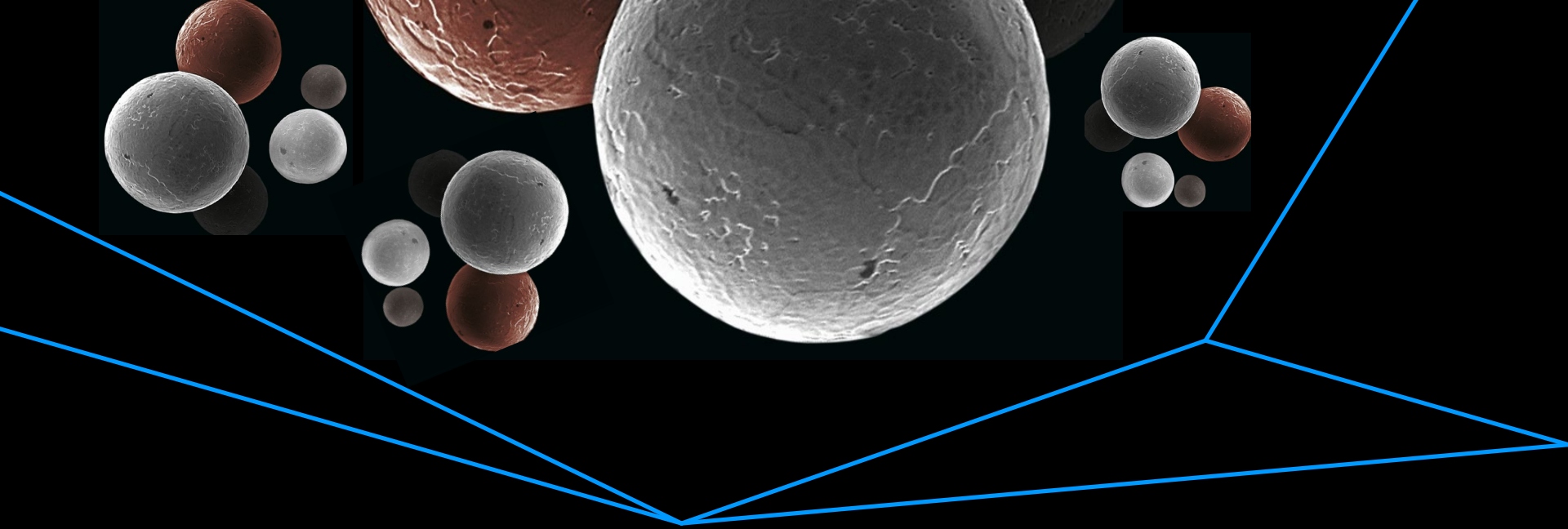

THANK YOU!