Innovation @ Ottobock

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TABLE OF CONTENTS

01

Innovation Ecosystem

How could an Innovation Ecosystem @ Ottobock look like?

a) What do we need to establish an Innovation Ecosystem @ Ottobock?

Internal Innovation Network (across sites)

Innovative Culture (employee empowerment)

C-Level Support (CXO, CEO, CTO)

Reliable Data Sources (Information + Insights)

External Innovation Network (partners)

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Innovation Ecosystem

IT Infrastructure (Dedicated Software & Services)

Centralized Innovation Unit (Innovation Lab + Team)

Innovation Management (Process + Tools)

Knowledge Management (Process + Tools)

b) How do we implement the prerequisites?

Innovation Network & Unit

Internal Network

- Identification of innovation scouts/ advocates in all departments
- Definition of experts as consultants for innovation topics (rating of ideas)
- Innovation hubs at main R&D sites (Berlin, Duderstadt, Wien, Königsee)

Central innovation unit for Ottobock with clear internal branding and mission

External Network

- Exchange with external innovation units & centers
- Collaboration with research institutes (e.g. Fraunhofer) and universities (e.g. TUM, RWTH)
- Collaboration with entrepreneurship centers (e.g. UnternehmerTUM)
- Usage of Open Innovation
- Startup collaboration

Fraunhofer

UNTER NEHMER TUM

IT Infrastructure & Data Sources

Itonics helps you drive innovation from strategy to execution at scale. All the way from insights to market in one single collaborative platform.

itonics
shaping innovation

Asana helps you manage projects, focus on what's important, and organize work in one place for seamless collaboration.

asana

GlassDollar helps corporations to find, implement and scale startup solutions creating tangible results and real impact across the organization.

GlassDollar

Data Sources

Consulting Firms
Gartner
Deloitte.

Patents
Europäisches Patentamt
European Patent Office
Office européen des brevets

Universities
TUM

Research Institutes
Fraunhofer

Media & Publishing
MTC connect

Company
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Industry & Competition
ÖSSUR
LIFE WITHOUT LIMITATIONS

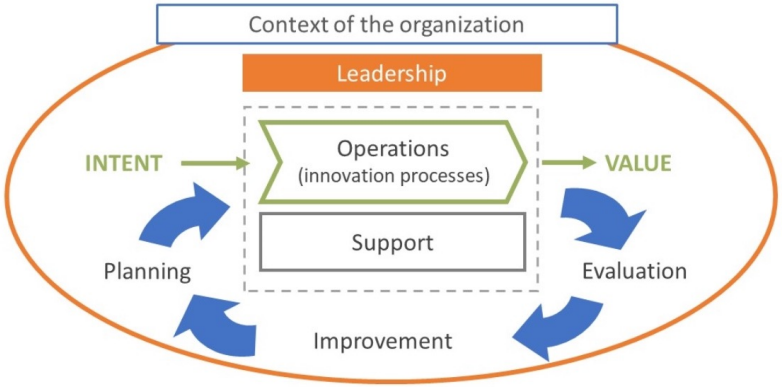
Knowledge & Innovation Management

Standardised Innovation Framework

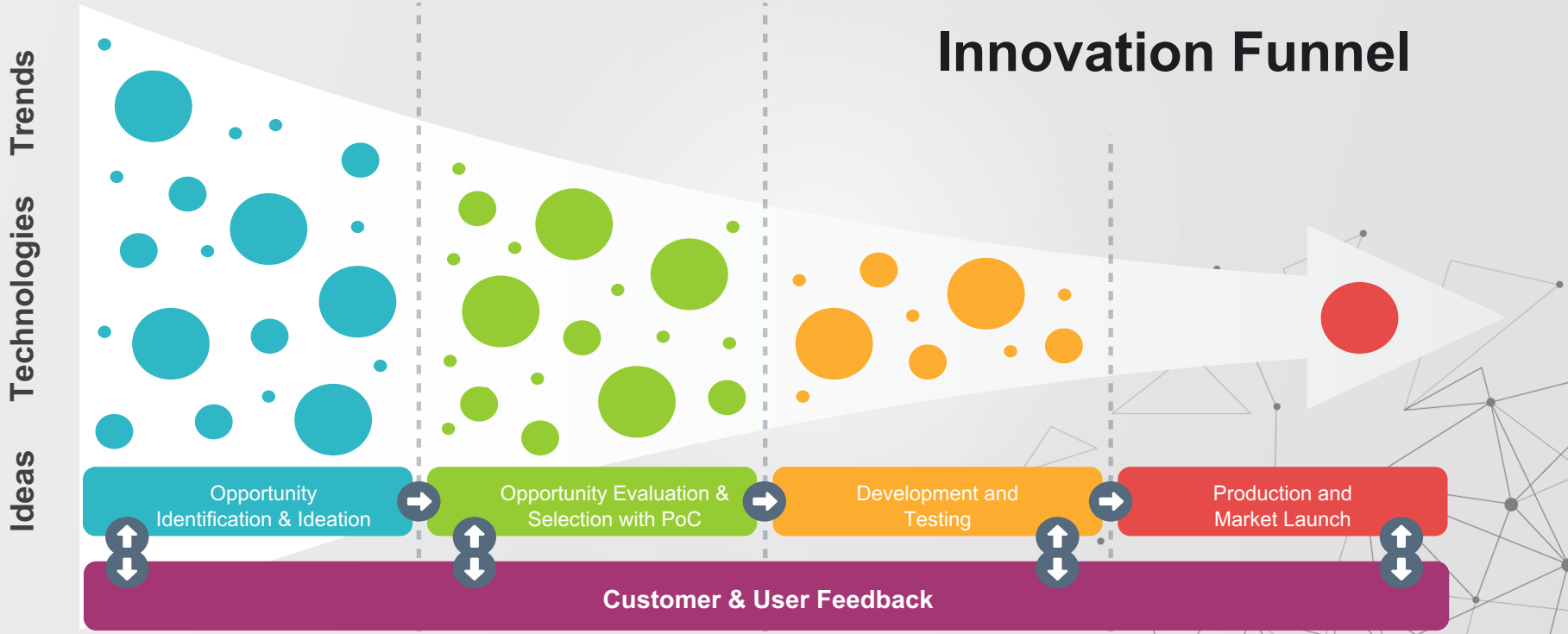
ISO 5600X | **ISO** | **ISO 30401**

Knowledge Management Standard

Innovation Management System



Knowledge & Innovation Management



Innovative Culture & C-Level Support

Empowerment

- Freedom for employees to test & implement own ideas (e.g. exemption, budget, team)
- Regular innovation events (e.g. Ideation Challenge, Hackathon, Innovation Board)
- Rewards for innovative employees (e.g. bonus, time, promotion, participation)
- Execution of projects with signal effect
- Continuous communication of innovation topics (e.g. new trends, successes & failures)

CXO
Martin Böhm

CTO/COO
Arne Jörn

Owner and President Ottobock Holding
Prof. Näder

- Patronage of events & participation
- Regular exchange with innovation unit & feedback
- Strategic decision making

c) What might potential pitfalls be?

Potential Pitfalls

- Parallel initiatives at multiple sites due to lack of coordination
- Hesitant employees due to fear of additional workload
- Focus on daily business & lack of time for innovation tasks
- Non-agile process for testing of ideas
- Lack of awareness of the innovation unit in the company
- Lack of manpower @ innovation unit
- Rejection of cooperation from other departments due to conviction of own innovative strength
- Hesitant team leads due to fear of loss of manpower
- Overlapping responsibilities with other departments
- Unclear innovation targets and lacking KPIs
- Frequently changing innovation process and insufficient compliance
- Difficult idea testing because of internal bureaucracy
- Insufficient & tedious knowledge management
- Hesitation to cancel innovation projects due to fear of failure

02

Potential Search Fields for Innovations

In which areas could we find break-through innovations?

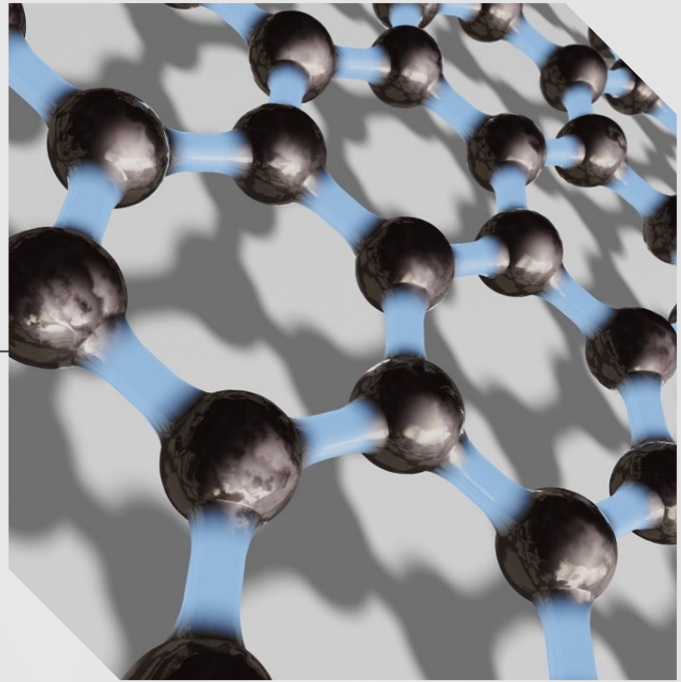
Additive Manufacturing for orthoses & prostheses

How could we leverage Additive Manufacturing to provide an optimized user-specific product?

Credit: EOS

Novel materials for prostheses & orthoses

Which innovative materials can we utilize to enable a biologically correct behavior?



Credit: ASME

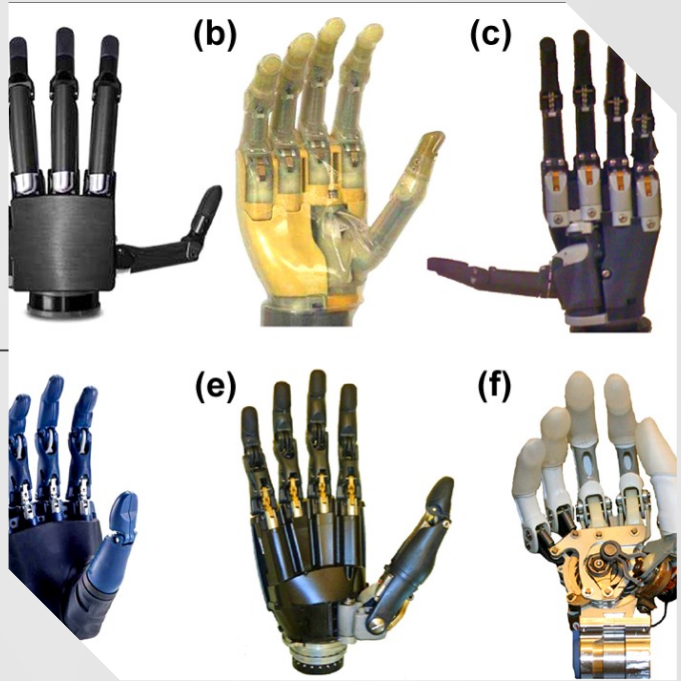
Machine Learning for smart prostheses & orthoses

What ML approaches can we utilize to optimize the control of smart prostheses & orthoses?

Credit: Open AI

The first prosthesis that enables feeling

Are there possibilities to develop prostheses that enable the user to feel comparable to a biological limb?



Credit: JRRD

Brain chips for prostheses control

Could brain chips enable & improve the control of smart prostheses?

Credit: Wired

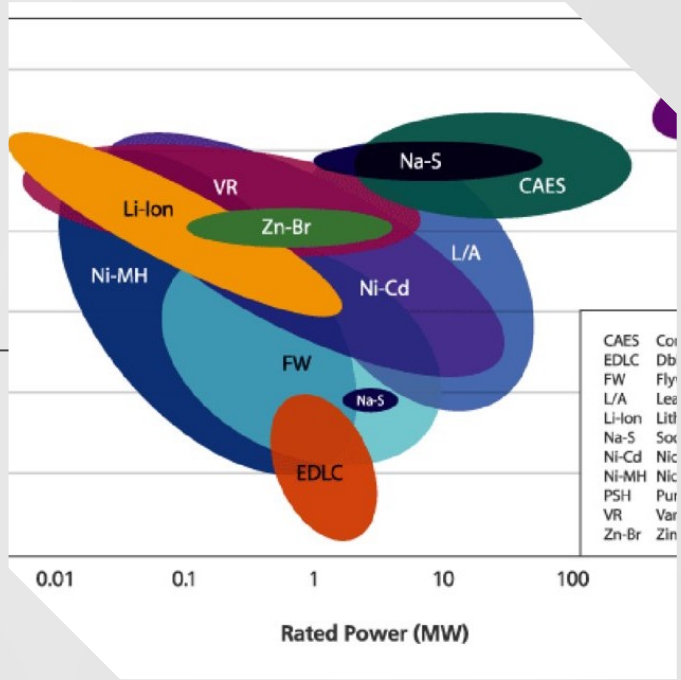
Novel fitting techniques for optimized prostheses

What novel approaches can we apply to achieve an optimized fit for prostheses?

Credit: Romedis

New energy storage technologies

Which novel energy storage technologies can we leverage to enhance the runtime of relevant products?



Credit: ResearchGate

The exoskeleton that allows you to walk (again)

Can we provide a fully-autonomous exoskeleton to wheelchair users to enable them to walk?

Credit: DesignWanted

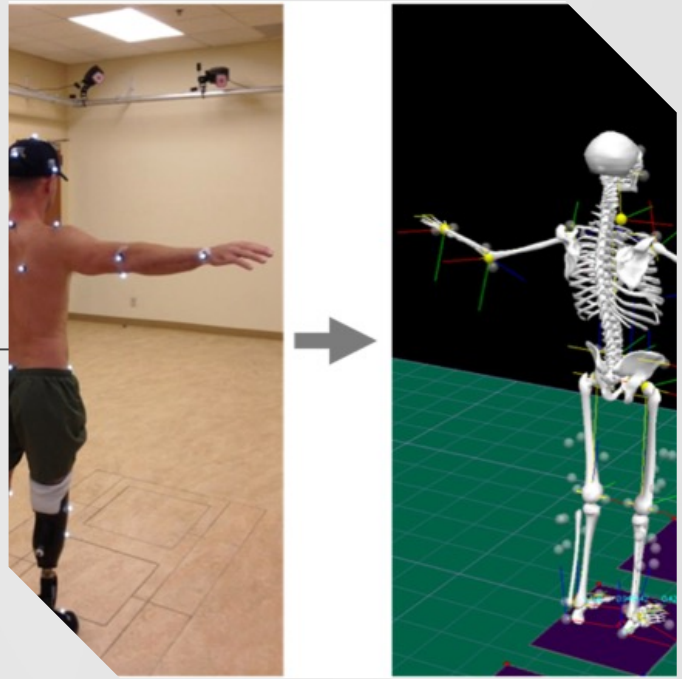
Orthotic posture & deformity correction

Can we utilize orthotic solutions to correct bone deformities or incorrect postures?

Credit: Nature

Novel techniques for an optimized gait analysis

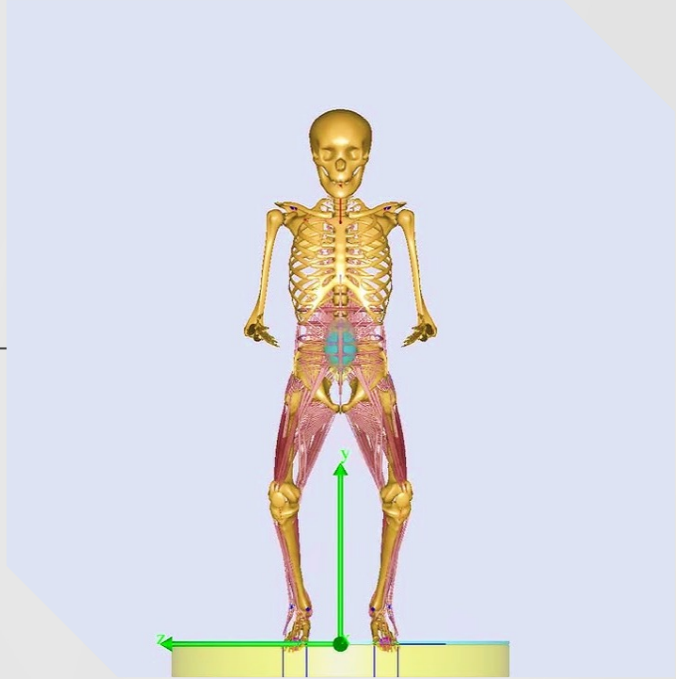
Can we utilize state-of-the-art gait analysis to provide a biomechanically optimized prosthesis or orthosis for the specific user?



Credit: Nature

Novel simulation techniques for optimized prostheses & orthoses

Can we leverage state-of-the-art simulation techniques to advance the design of prostheses & orthoses?



Credit: AnyBody

Neuromodulation for enhanced mobilization

How can we leverage and optimize neuromodulation for neurological conditions to support patient mobilization?

Credit: Ottobock

Human Augmentation via prostheses

Can we equip prostheses with technologically advanced features to enhance human capabilities beyond a biological limb?

Credit: BBC

03

Idea Testing & Validation

How can we assess the feasibility of new ideas efficiently?

Idea Testing & Validation

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Existing competencies

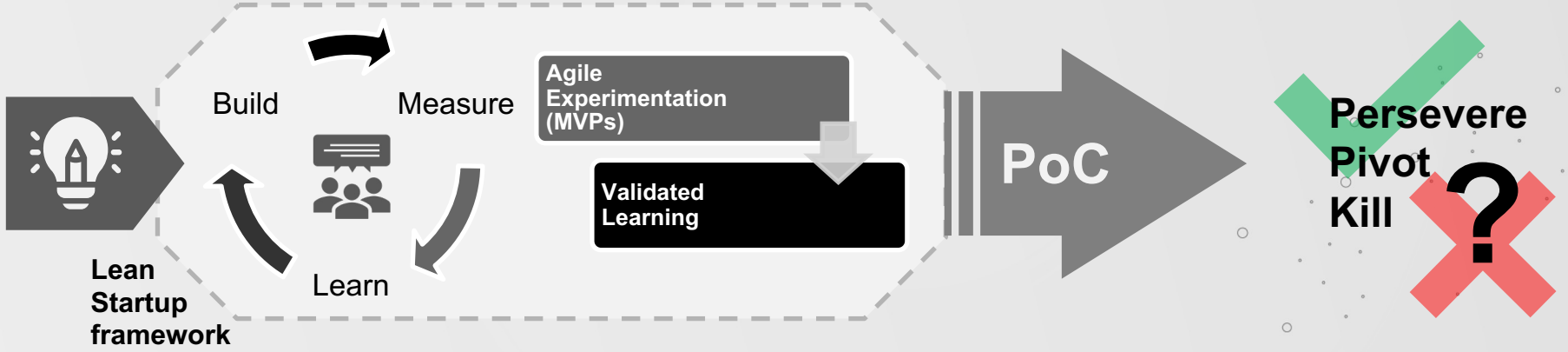
Which existing internal capabilities & technologies can we leverage to implement a solution?

Innovation Team

Lacking competencies

What skills do we need to build or acquire to implement a successful solution?

- Training
- Startups
- Partners



Thank you!

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LinkedIn

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