Good morning, esteemed guests and colleagues.

Today, I would like to address a pressing issue that is often overlooked.

Our focus will be on amputees who have lost limbs and their place within our society.

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My presentation will briefly cover eight key topics.

1. Introduction

Imagine :

What if you lost one of your legs because of a traffic accident…

- **Not walkable.**
- **May lose your current job.**
- **No longer frolicking around with kids in the park.**

Radiograph of a healed bone bridge after the amputation

Source: transtibia prosthetics

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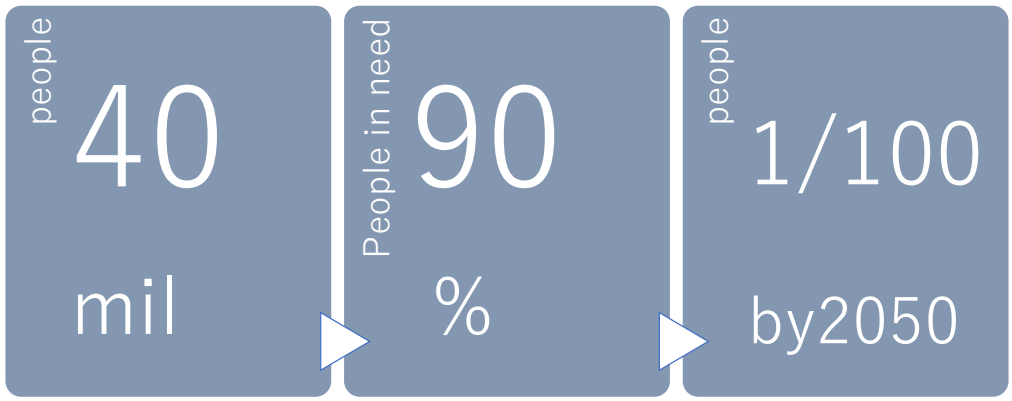
Please take a moment to imagine the impact of losing one of your legs.

You would struggle to walk, potentially lose your job, and no longer be able to actively play with your children in the park.

It is crucial to acknowledge the vital role prosthetics and orthotics play in empowering individuals with physical impairments, allowing them to lead independent, dignified lives and actively participate in society.

However, limited access to these devices can result in social exclusion, isolation, and poverty, which in turn exacerbate the burden of morbidity and disability.

2. The number we need to know

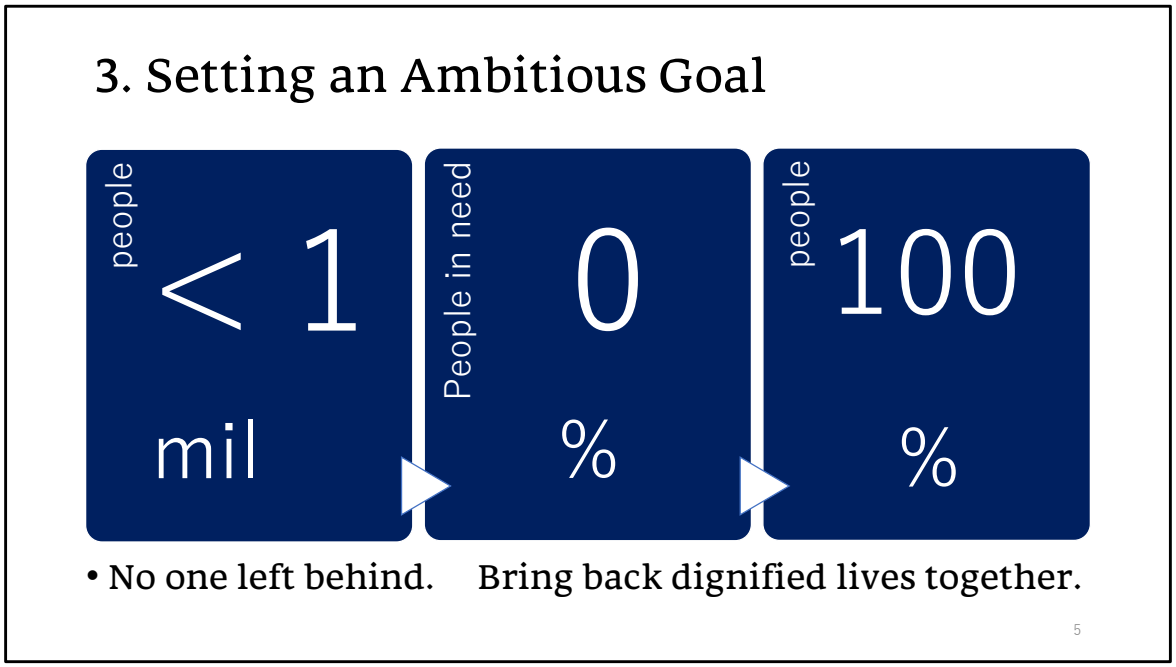


Approximately 40 million people worldwide lack access to prosthetic legs.

Of these individuals, 90% cannot afford prosthetics or are unaware of available services.

Alarmingly, the number of amputees is expected to reach 80 million, affecting 1 in 100 people globally.

This can be referred to as the global amputee crisis.



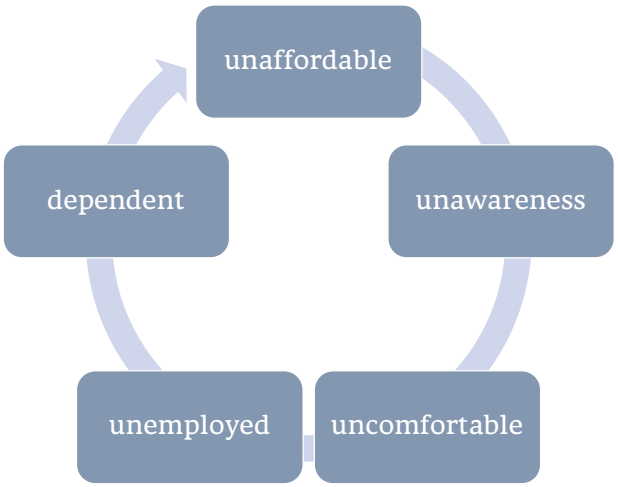
Modern society faces numerous challenges, such as child abuse, bullying, suicide, mental disorders, and economic disparities.

While Sustainable Development Goals aim to address these issues, social matters often take a back seat to economic efficiency.

By focusing on social inclusion and dignified living, we can bring about positive change.

Therefore, I propose the following goals:
* Reduce the number of new amputees to less than 1 million people.
* Ensure all individuals requiring prosthetic devices can obtain them.
* Enable all amputees using prosthetics to experience a healthier and happier life without exception.

4. Challenges and Barriers



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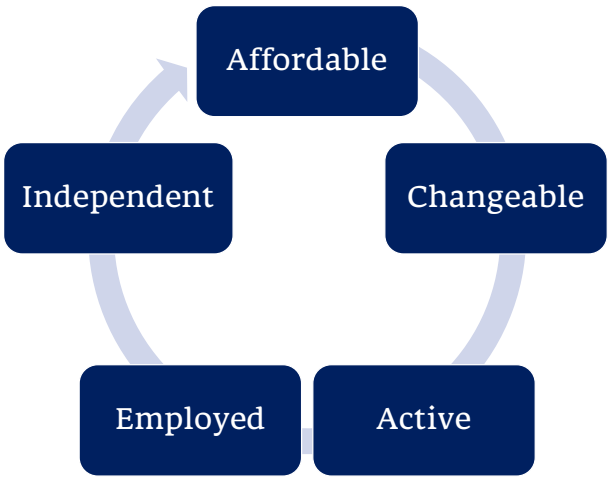
For 90% of amputees, affordability and awareness remain significant challenges when it comes to accessing prosthetics.

Many also experience difficulties with fit and comfort.

Limb loss often results in unemployment, financial dependence, and social exclusion.

4b. Process to our goal (1)



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A Japanese firm has developed an innovative AI-assisted 3D printing method for affordable prosthetic legs.

These devices cost only a tenth of traditional prosthetics, allowing amputees to purchase multiple devices for various needs.

This groundbreaking technology can enable amputees to lead active lives, opening up job opportunities, and regain financial independence.

5. Innovations in Prosthetic Technologies

Existing method

Certified specialists produce prosthetic devices in the traditional method.

Source: wcbl.com

Shifting to new method

Instalimb produces prosthetic legs utilizing AI and 3D printing technologies.

Source: IT Media Inc.

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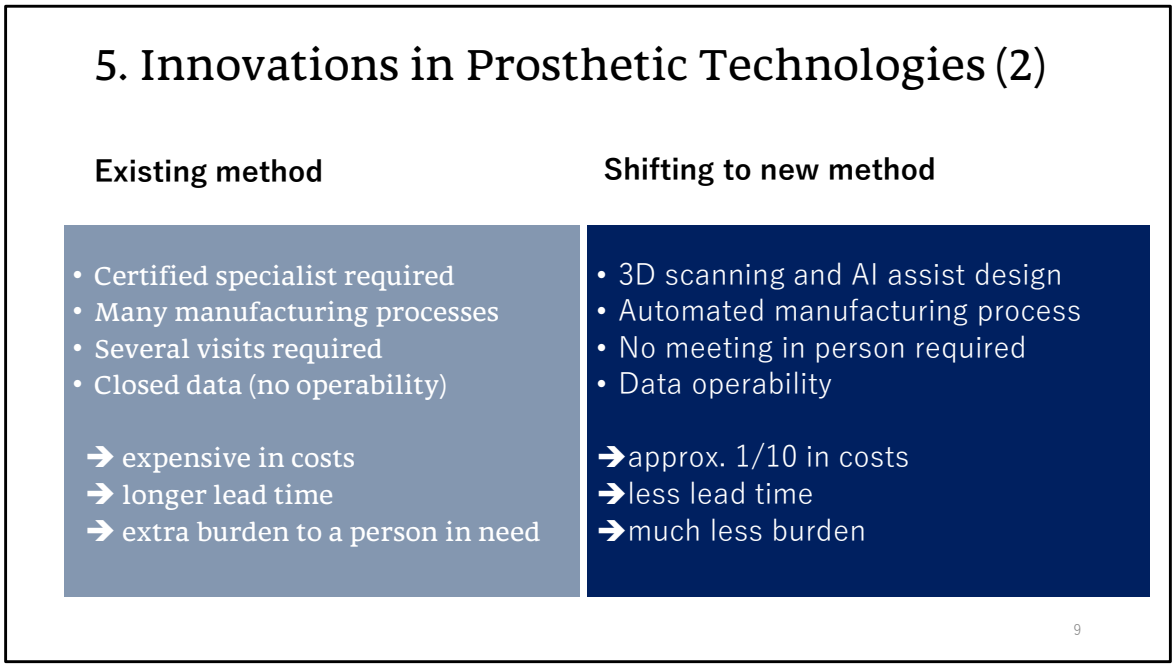
Let's compare traditional and 3D-printed prosthetics.

The traditional fabrication process, shown on the left, involves a time-consuming, labor-intensive plaster molding method.

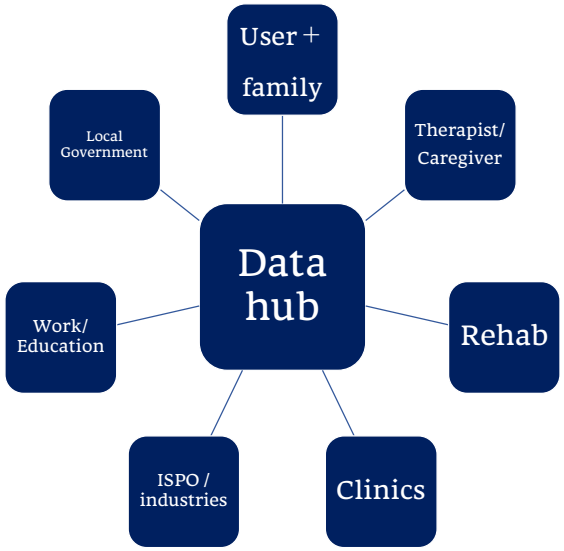
In contrast, 3D-printed prosthetics, shown on the right, use AI and 3D scanning for efficient, precise, and customizable designs.



On this slide, we've summarized the major differences between traditional and innovative prosthetic technologies.

Although traditional methods still play a significant role in providing prosthetic legs, it's clear that new approaches, like 3D-printed prosthetics, offer remarkable benefits to amputees with their efficiency, precision, and customizability.

6. Building a Supportive Community



- Rehab = rehabilitation center
- ISPO= the International Society for Prosthetics and Orthotics

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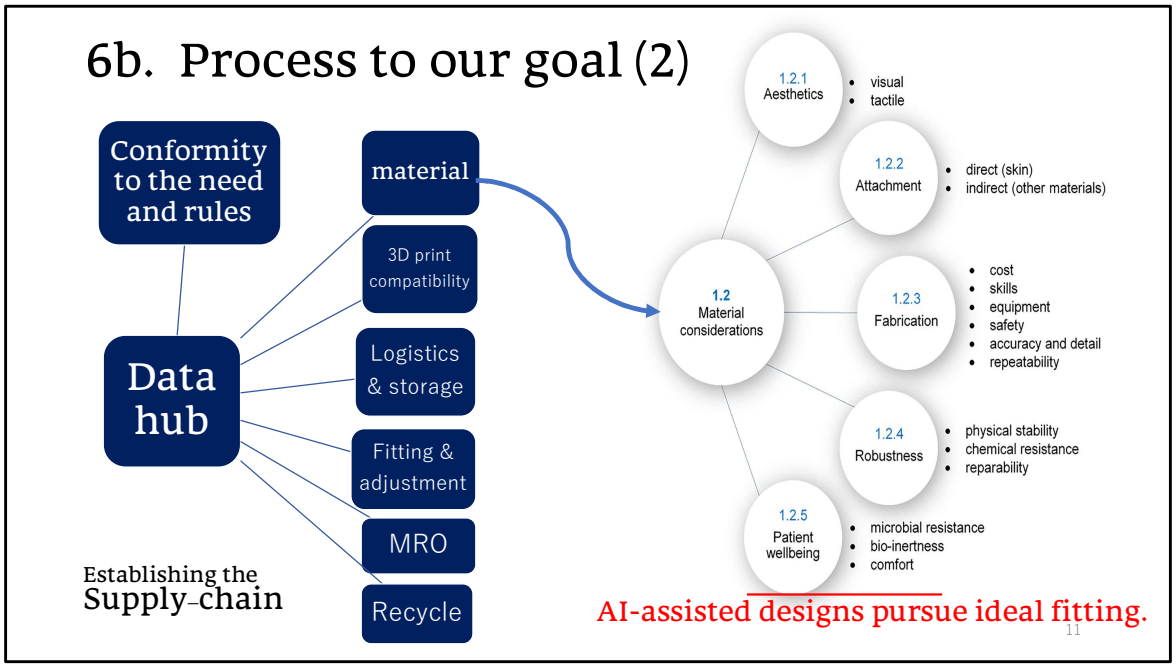
An effective support ecosystem is crucial for enhancing mobility and functionality.

A data hub can connect rehabilitation centers, fitters, and clinics for continuous improvement.

We must also advocate for the elimination of bias against prosthetic devices.

By working with local partners, we can help amputees regain their dignity and integrate into society.



In the supply-chain process, selecting appropriate raw materials for liners and sockets is vital for ensuring amputees' comfort.

Additionally, data on residual limbs is essential for analyzing stump conditions and creating detailed designs, taking into account biomechanics and the relationship between the residual limb and prosthetic socket.

Prosthetic legs should be comfortable to wear, feel like a natural extension of the body, and be easy to maintain.

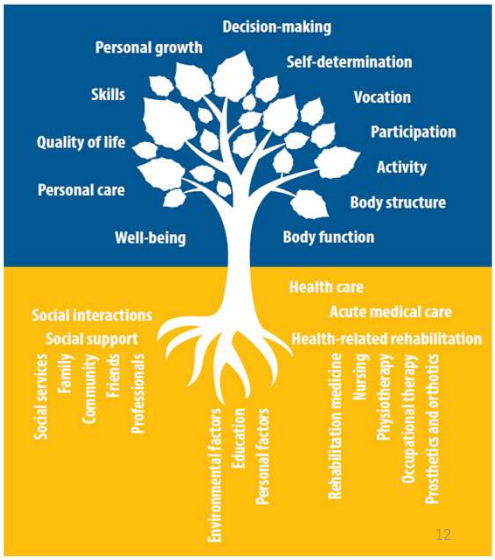
Effective communication among fitters, users, and clinics are also critical for fine-tuning the socket and liner, ultimately contributing to improved patient quality of life

7. Beyond Prosthetic Delivery

- Delivering prosthetic devices itself does not solve all. We shall consider the goals further.
- Dignified lives with prosthetic leg does matter.

Quality prosthetic leg improves personal QOL.

Social inclusion makes it true QOL on social well-being.



Social inclusion is essential for amputees to lead dignified lives.

Without respectful inclusion, functional gains from prosthetics do not translate into an improved quality of life.

Exclusion, dependence, and isolation have significant social and economic consequences that we must address.

Emphasizing social inclusion ensures that personal quality of life aligns with overall social well-being.

In conclusion, let's unite to achieve our goals:

a) Reduce new amputees by promoting healthy lifestyles, research, and collaboration.

b) Ensure every amputee has access to prosthetics through holistic care, innovation, and strong networks.

c) Achieve 100% social inclusion and dignified living by addressing misconceptions, advocating policies, and empowering amputees.

Your support is crucial in making these goals a reality.

Source: WHO.

No one should be left behind. Bring back dignified lives together.

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Thank you for your attention.

Please join and let's work together to build better society involving amputees worldwide.