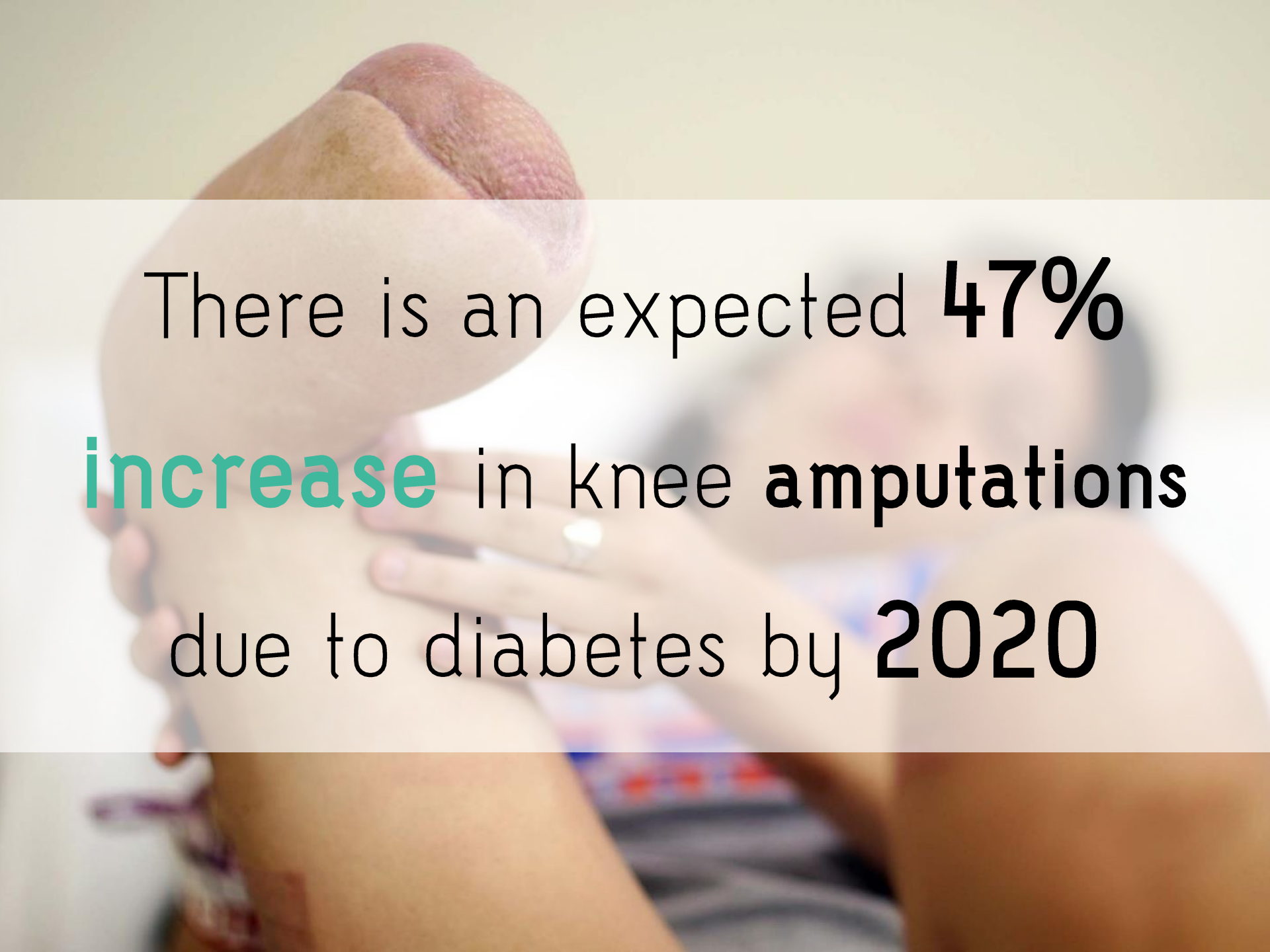






1 of every 500
people are amputees...

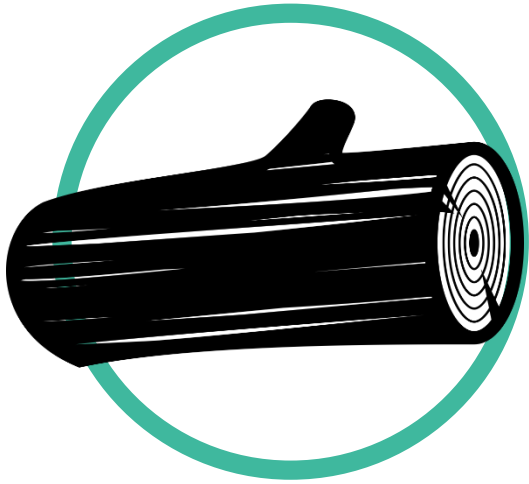
A close-up photograph of a person's knee, showing a large, reddish, swollen area on the joint, possibly a medical condition or injury. The background is blurred, showing a person's face and torso.

There is an expected **47%**
increase in knee **amputations**
due to diabetes by **2020**

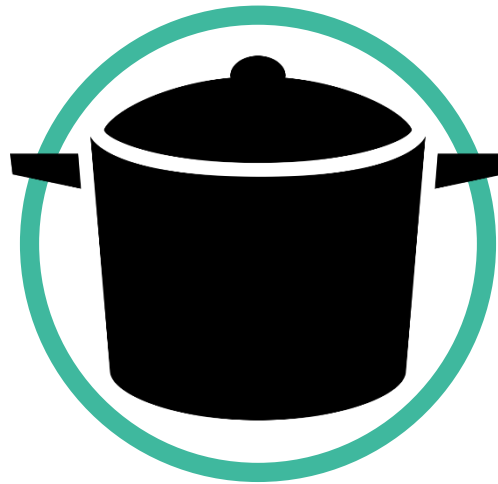
Economic problems force our user to make their own prosthesis.



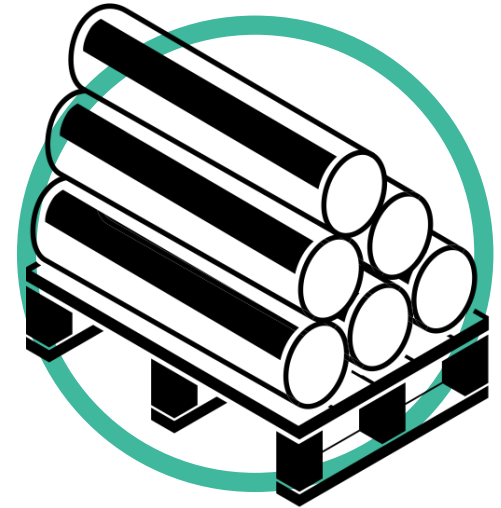
Use **whatever** they can find...



WOODS



PANS



PIPES

PRO▼ STETIK

Benjamín Abarca | Cristián Antúnez | Valentina Martínez | Pablo Serrano | Benjamín Benavides

Low cost prosthesis

Behaves
like a high
performance
one



Limb
measures



COMFORTABLE



and the best?

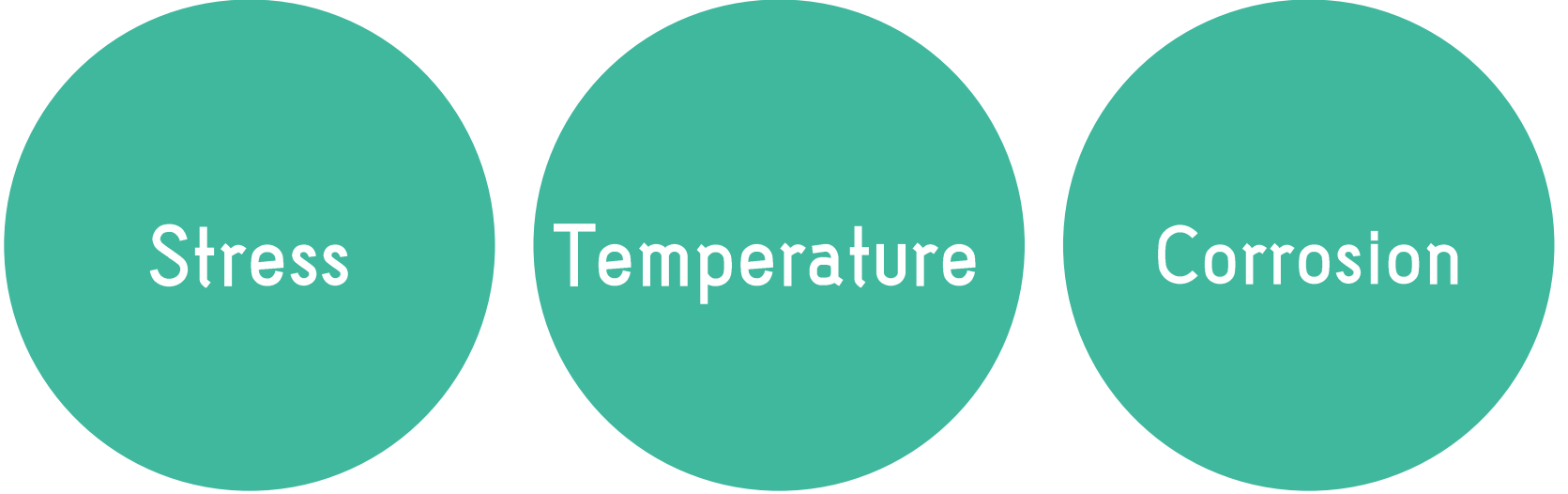
A stylized graphic featuring two white human figures on a dark, textured background. The figure on the left is holding a white trash can with a grid pattern and a flame icon above it. The figure on the right is holding a white recycling symbol (a triangle with a circle inside). A green horizontal band is overlaid across the middle of the image.

Made from recycled PVC

BAMMENS B.V. MAARSSSEN NL

Why PVC?

High resistance against:



Stress

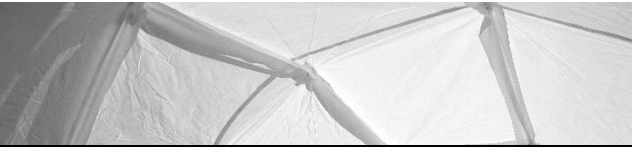
Temperature

Corrosion

Today the PVC is being used in...



What happens after it has served its purpose?



NOTHING





Double impact

COMPETITION

3D
printing





3D printing it has one big problem

How are we GONNA DO IT?

1



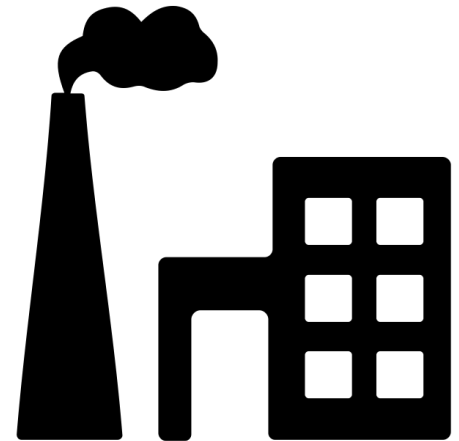
GET THE PVC FROM
TRICICLOS

2



CREATE THE
SOCKET

3



GRIND AND MOLD
PVC INTO PRODUCT

Users will be contacted via:

Teletón

Hospitals





Focus on the **orthoses** market

Nowadays...

50 USD — 200 USD

Cost

USD 20

Market

Source: INE

19 MILLION

DOLLARS

Only in Chile

What's next?

1





2

From
Teletón to
LATAM

ERIA MECANICA
METALURGICA

Our team

Benjamín
Benavides

Valentina
Martínez

Cristián
Antúnez

Benjamín
Abarca

Pablo
Serrano

We are one step forward

PRO▼ STETIK

Prototype

This is the prostetik leg

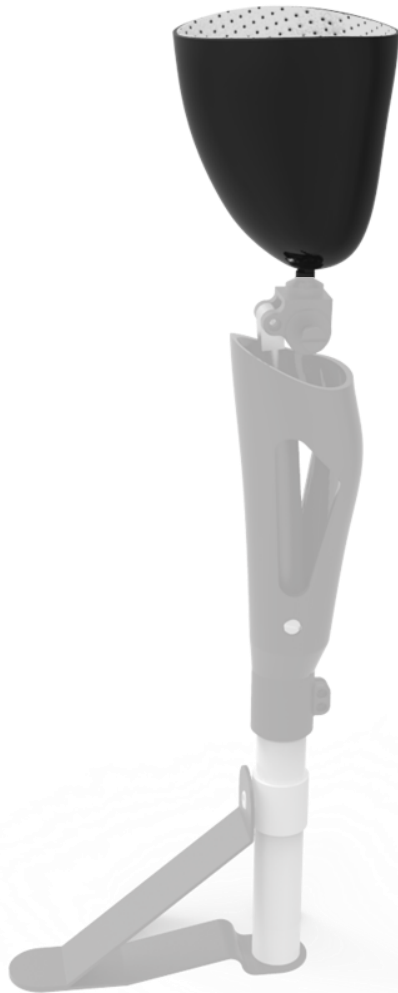


This is the prostetik leg



Standard
design
leg

This is the prostetik leg



Specially
designed
socket

Ergonomic:
Designed
for end
user





And it's
made from
PVC

How to measure the limb?

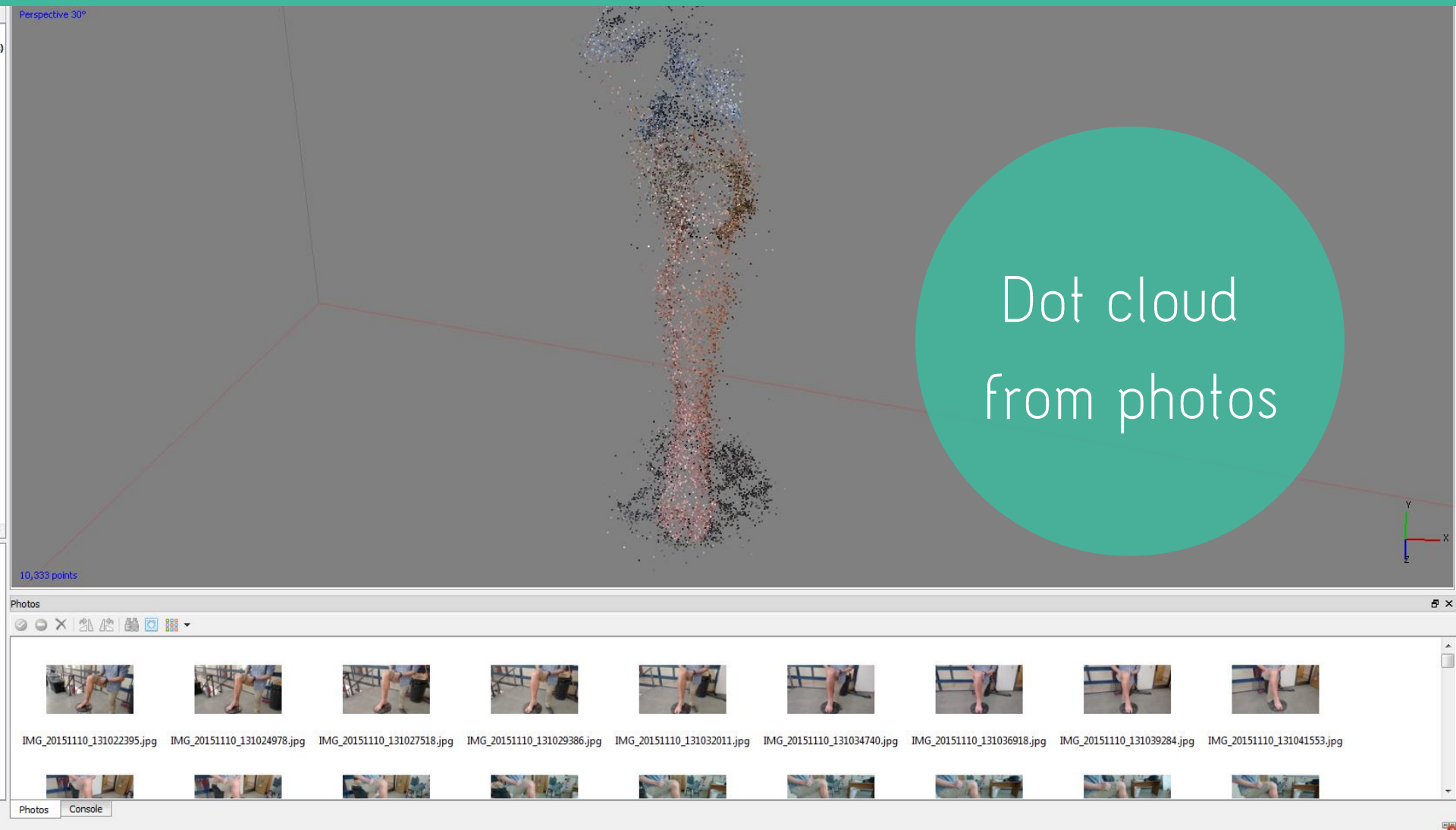


How to measure the limb?

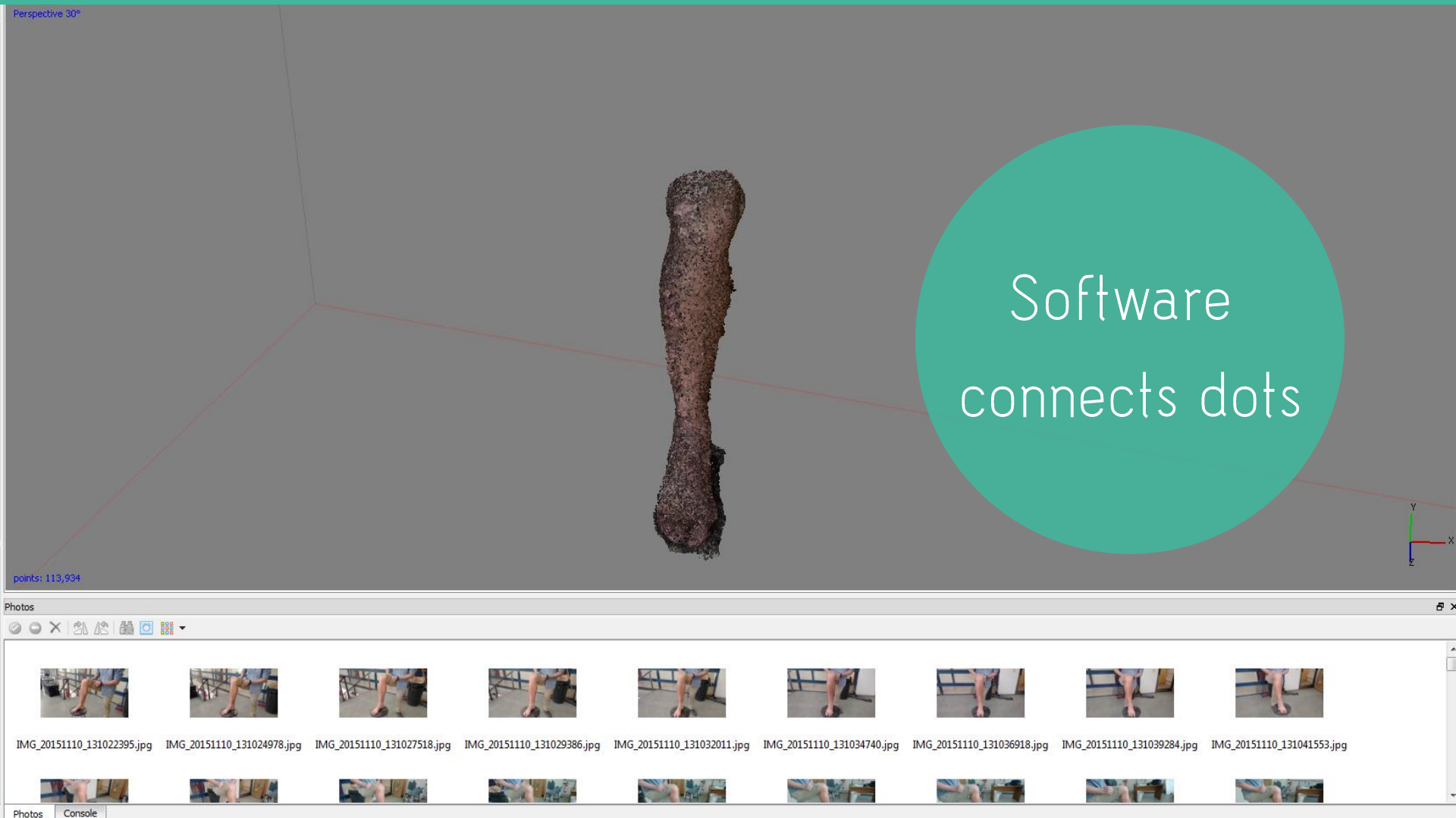


photogrammetry
software

How to measure the limb?



How to measure the limb?



How to measure the limb?

Perspective 30°

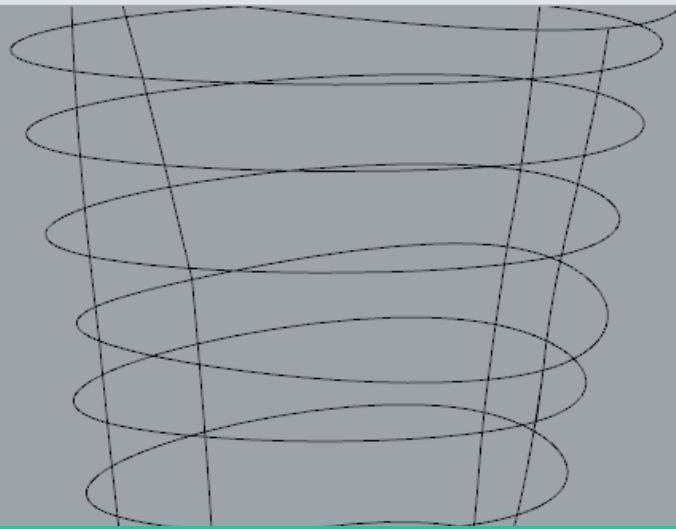


Creates
3D model

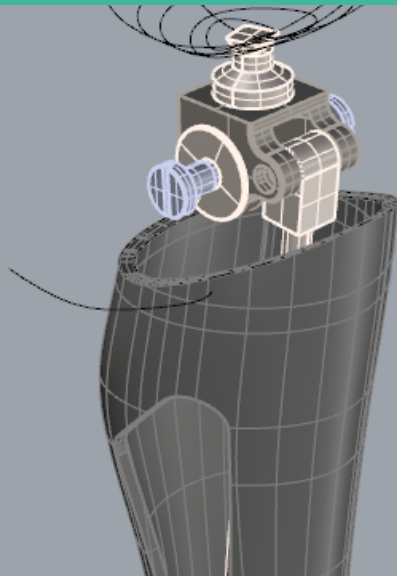
Photos

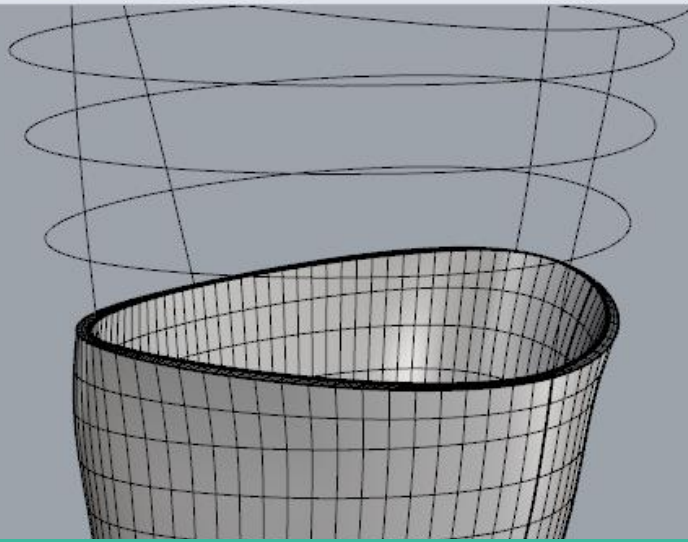


Photos Console

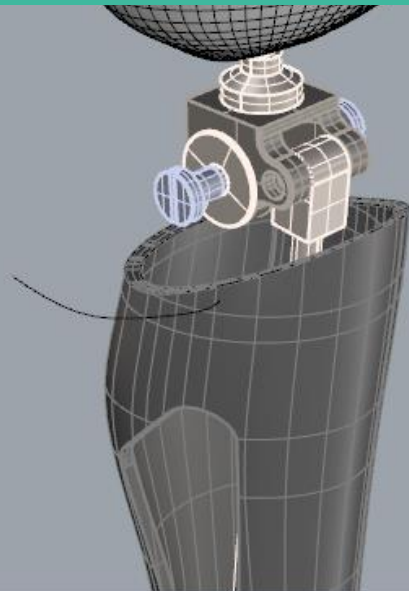


Then we take the limb dimensions



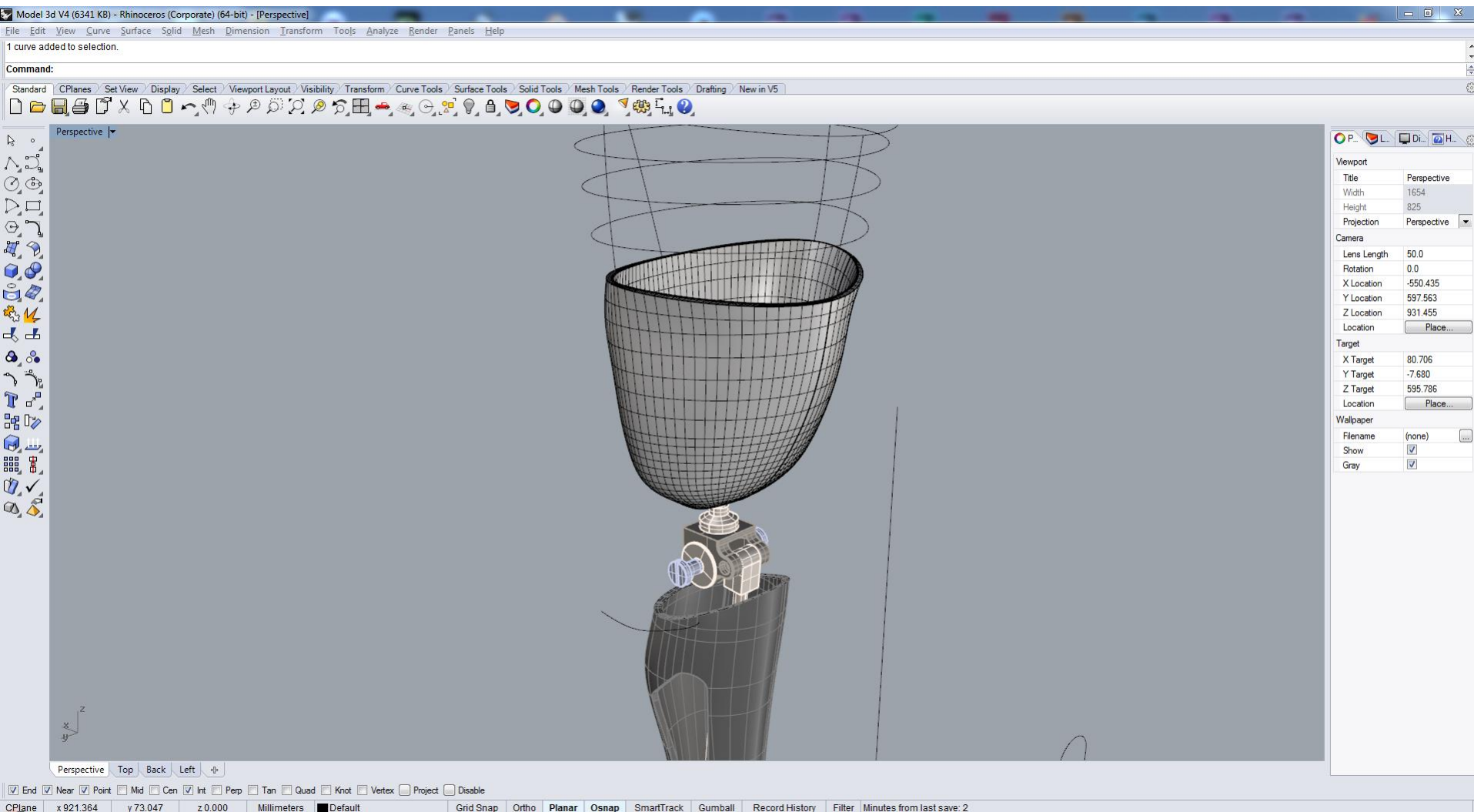


And build the socket around it



PRO▼ STETIK

Prototype



Joints and finishes



Joints and finishes



Yearly available PVC

2014

73.000 TON PVC WERE USED

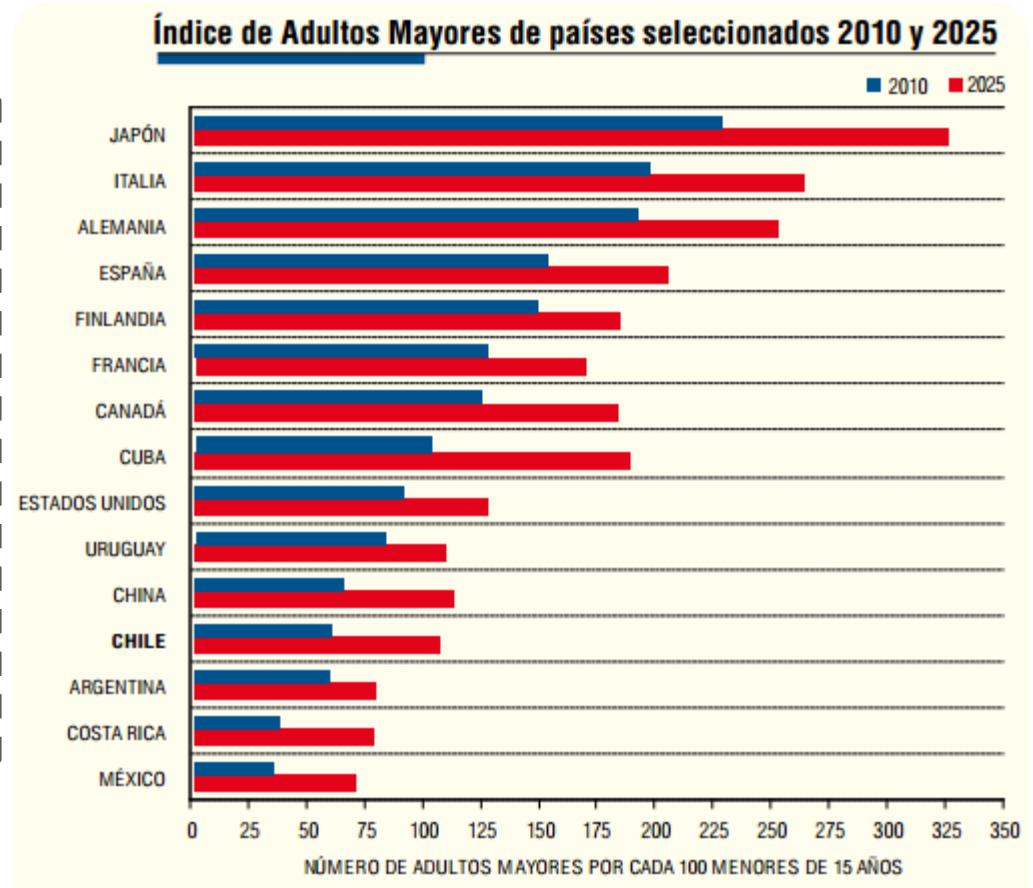
First trimester 2015

MORE THAN 18.000 TON

Why orthoses?

Increased
market for
seniors

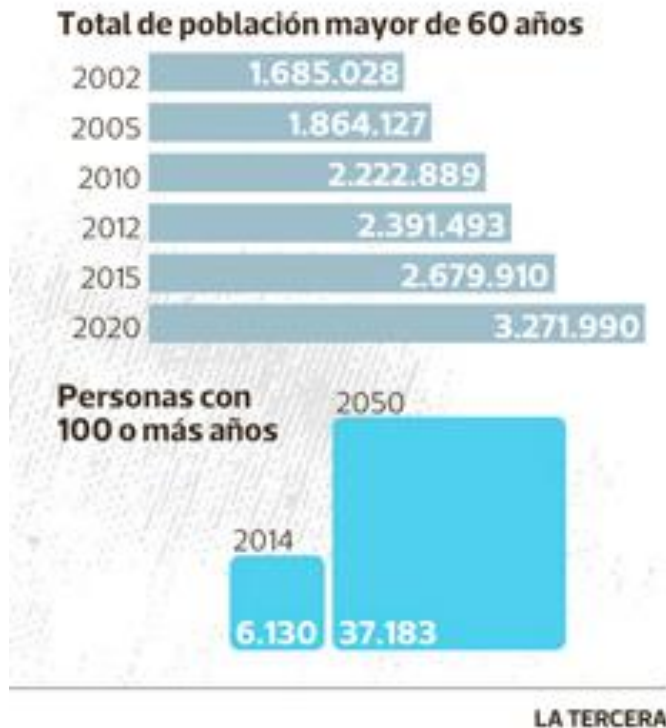
Source: INE Chile



6,9%

By 2050 the population aged 80 and over will grow about five times and represent 6.9% of the total population, doubling the number of women to the men.

Business model



In 2020:

3.271.990



20% of seniors have **mobility problems**

Source: Escuela de medicina UC