



Classification of foot types and application to ethnic last design & diabetic feet

FOOTY



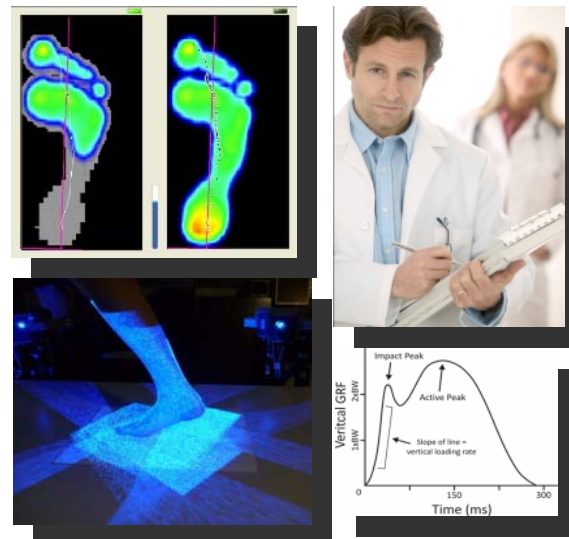
MOBILAB

Kempen University of applied sciences



Project Details

Project coordinator	MOBILAB - K.H. Kempen University College
Sector	Orthopedics
Call of Interest	CORNET





Project Details

Proposal summary:



Uncorrected foot types



Foot analysis can be more consistent



Inadequate footwear

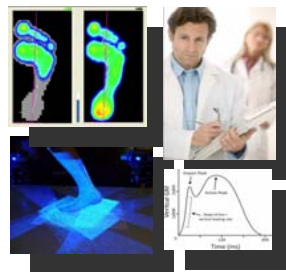


Footwear adapted for ethnic foot type varieties

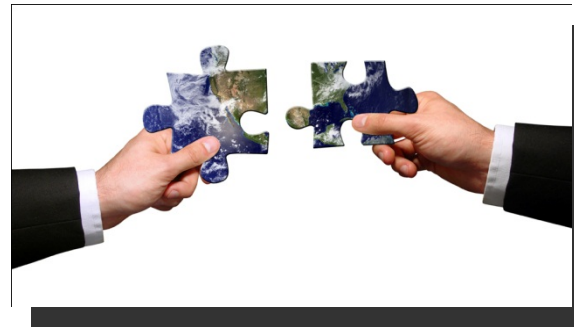


This research project aims to **classify feet automatically according to foot type**, supporting clinicians to perform an objective foot analysis.

At the same time, this project serves as a proof of concept and as a starting point to **provide the shoe industry with insight in ethnic foot varieties**.



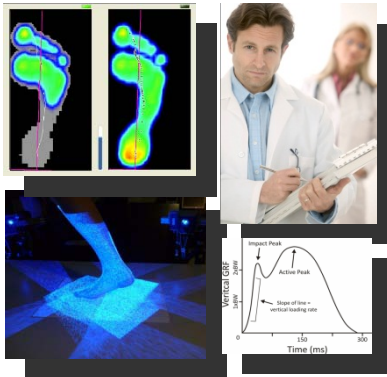
Project Details



<p>Advantages for SMEs, trade or industry:</p>	<p>The foot type tool is an objective tool to determine the foot typology of a person.</p> <ul style="list-style-type: none">• Assistance for clinicians to perform foot analysis• Decision test for the public: learn quickly if people would benefit from wearing insoles, help in finding suitable footwear. <p>Shoe industry acquires the required knowledge to produce ethnical specific shoes.</p>
<p>Profile of partners sought:</p>	<p>Orthopedic and shoe associations</p>

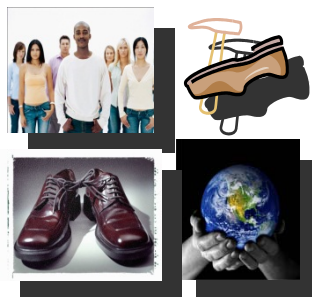
Summary

➤ Objectives and outcomes:



- ❑ Definition of foot types as applied in clinical practice nowadays
- ❑ Foot type analysis measurement setup: dynamic 3D scanning, pressure distribution, ground reaction forces,..
- ❑ Combination of measurement data and clinical analysis

⇒ **Foot typology tool**



- ❑ Application of the foot typology tool on ethnic varieties
- ❑ Application of last design parameters on ethnic varieties

⇒ **Characteristic ethnical foot forms & typologies, and related last design**

Summary

- Application field:
 - 3D scanning equipment – pressure plate – force plate
 - Orthopedics (insoles)
 - Shoe industry
 - Relation diabetic foot ~ foot type => Diabetic research
 - ..



- Actors of the project



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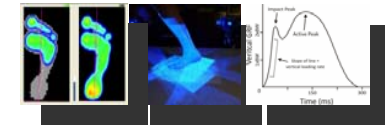
- Estimated cost: € 480.000
- Duration: 2 years



➤ Benefits for future partners

Measurement equipment industry

- Integration of dynamic 3D scanners, pressure plates and ground reaction force equipment.
- Optimization of dynamic 3D scanning



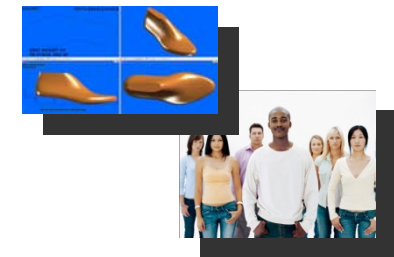
Orthopedics

- Direct insight in foot analysis as applied in clinical practice nowadays
- Access to a standardized foot type tool, as an aid to efficiently perform an objective foot analysis.



Shoe industry

- Insights in the relation between foot types and last design
- Required knowledge to produce ethnic specific shoes



Other...

- Application of the foot type tool in diabetic research: foot types in diabetic patients
- Application of the foot type tool in various other fields..



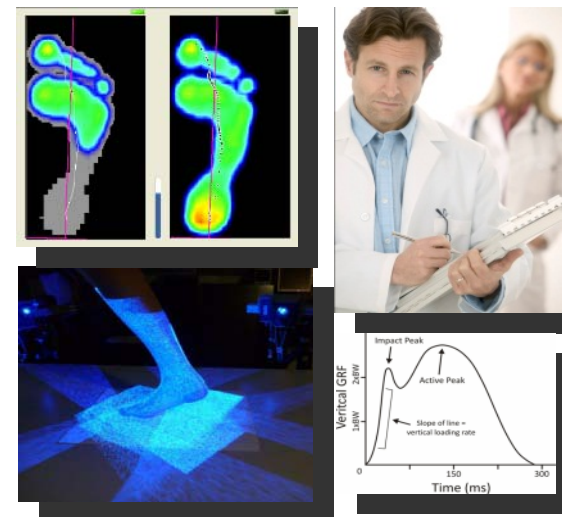
Contact details

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