

# SCIENCE DIABETICC FOOTWEAR - DEVELOPMENT OF INNOVATIVE THERAPEUTIC FOOTWEAR FOR DIABETIC FEET

## PROJECT TOTAL DURATION

36 MONTHS (20.08.2019 — 19.08.2022)

## TOTAL INVESTMENT

€ 1 003 152,74

## ESENF C INVESTMENT

€ 221 771,43

## COFUNDING

PROJ. Nº 39784

CO-PROMOTION R&D PROJECTS, INTERFACE PROGRAMME

75% CO-FUNDED BY FEDER

POCI-01-0247-FEDER-039784



UNIÃO EUROPEIA  
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## PRIORITY RESEARCH TOPIC

INNOVATION IN NURSING CARE TECHNOLOGY

## PROJECT OBJECTIVE

THE PROJECT AIMS TO DEVELOP A NEW THERAPEUTIC FOOTWEAR, TARGETING THE CLINICAL CONDITION OF DIABETIC FEET, WITH THE FOLLOWING DISTINGUISHING FACTORS: NEW MATERIALS AT THE LEVEL OF THE INSOLE AND SOLE THAT ALLOW GREATER ABSORPTION OF IMPACTS, THE ABILITY TO ADAPT THE SHAPE AND GREATER RECOVERY AFTER LOADING AND LESS ABRASION, BUT ALSO THE ABILITY TO REDUCE THE RISK OF INFECTIONS ASSOCIATED WITH DIABETIC ULCERS.

AT THE INSOLE LEVEL, ANTIMICROBIAL COATINGS WILL BE INVESTIGATED TO PREVENT INFECTIONS. AT THE SAME TIME, NEW MATERIAL SYSTEMS WILL BE INVESTIGATED FOR THE SHOE IN ORDER TO ACHIEVE GREATER ERGONOMIC AND THERMOPHYSIOLOGICAL COMFORT. IN TERMS OF DESIGN, DECORATIVE COATINGS FOR THE FOOTWEAR WILL BE STUDIED, GIVING AN APPEALING DESIGN TO THEIR END USERS. THE SHOES WILL ALSO INCLUDE SELF-SENSING MATERIALS FOR MONITORING (PRESSURE, TEMPERATURE AND HUMIDITY) AND DETECTING PLANTAR PRESSURE ZONES AND OTHER CRITICAL AREAS OF THE FOOT.

## APPLICANT ORGANIZATION

ICC—INDÚSTRIAS E COMÉRCIO DE CALÇADO S.A.

## PARTICIPATING ORGANIZATIONS

UICISA: E/ESCOLA SUPERIOR DE ENFERMAGEM DE COIMBRA (ESENF C) (RESEARCHER: PEDRO PARREIRA; ANABELA OLIVEIRA; JOÃO APÓSTOLO)

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