

HORIZON  
2020

# Innovative offshore safety system to protect the body from cold shock in extreme conditions

## Sprawozdania

### Informacje na temat projektu

#### Centurion 3

Identyfikator umowy o grant: 883511

[Strona internetowa projektu](#)

#### DOI

[10.3030/883511](#)

Projekt został zamknięty

#### Data podpisania przez KE

26 Listopada 2019

#### Data rozpoczęcia

1 Listopada 2019

#### Data zakończenia

29 Lutego 2020

#### Finansowanie w ramach

INDUSTRIAL LEADERSHIP - Innovation In SMEs

#### Koszt całkowity

€ 71 429,00

#### Wkład UE

€ 50 000,00

#### Koordynowany przez

IRON OCEAN LIMITED

 United Kingdom

## Periodic Reporting for period 1 - Centurion 3 (Innovative offshore safety system to protect the body from cold shock in extreme conditions)

Okres sprawozdawczy: 2019-11-01 do 2020-02-29

[Podsumowanie kontekstu i ogólnych celów projektu](#)



The global maritime and offshore industry is responsible for 90% of global trade, and comprises lucrative industries such as oil and gas, shipping, aquaculture and renewable energy. The EU maritime transport sector alone employs 230,000 people and accounts for approximately 40% of the world's fleet. The safety of the employees and workers during the offshore operations is critical to the sustainability of this industry. Helicopter passenger transport operations are the leading cause of fatalities of this industry. The majority of fatalities are due to drowning in cold water leading to cold shock and hypothermia. The Centurion 3 is a revolutionary upper body 3-layer garment, that produces immediate life-saving heat upon contact with cold water to prevent cold shock and delay the onset of hypothermia, hence promoting rescue. The objectives of the feasibility study were to evaluate the technical requirements for introduction of the garment to the European market and to identify the optimum market segments for initial roll out. Iron Ocean's ambition is to become Europe's foremost supplier of advanced life-saving garments for all environmental conditions. Iron Ocean's innovations will have a broad reaching future impact in maritime, offshore, aerospace, security, and sport/outdoor pursuits.

## Prace wykonane od początku projektu do końca okresu sprawozdawczego oraz najważniejsze dotychczasowe rezultaty



Iron Ocean completed a full analysis of the technical and business potential of the garment and initially identified a minimum viable product for the European market based on regional drivers. Iron Ocean also analysed its present pipeline of other high value products and the potential customer base and calculated detailed six-year financial projections should commercialization be achieved. Iron Ocean formulated a robust industrialisation strategy and addressed risks and regulations which could be relevant the process of bringing the garment to market. The necessary technical steps required to release a viable solution in the European market were analysed and a scale-up plan was outlined.

## Innowacyjność oraz oczekiwany potencjalny wpływ (w tym dotychczasowe znaczenie społeczno-gospodarcze i szersze implikacje społeczne projektu)



The expected outcome is to optimize technical composition, set up manufacturing line and perform validation trials such that market readiness will be achieved by the end of the Phase 2 project. The Centurion 3 garment will offer the last line of defence against the heart-stopping temperature of the sea at a competitive cost. This will deliver a significant impact to customers and users in terms of employee safety and compliance with regulatory standards. The garment will provide immediate life-saving heat to the wearer upon cold water exposure and reduce the risk of cold shock hence, promoting rescue during the offshore operations.



REACTA GEL: AQUA

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European Union, 2025