

# OptiColor Project

Determining Optimal Safety Colors

Achilleas Mina  
S-Innovations Ltd



1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



## About this Presentation

1. Accidents at Work (3 min)
2. OptiColor project (15 min)
3. Ideal Long-term Outcome (3 min)
4. The collaboration with RISE (2 min)
5. S-Innovations Ltd (2 min)
6. Computer Vision in Offshore Construction (10 min)

## 1. Accidents at Work

2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

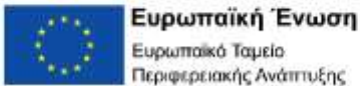
Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# Accidents at Work

Accident Definition: Results to at least 4 days of absence

**Cyprus 10-year average:**  
2000 accidents at work /year  
9.5 fatal accidents/year

**Europe EU28, year 2015**  
**3,212,000** accidents  
**3880** fatal accidents at work

ΘΑΝΑΤΟΦΟΡΑ ΕΡΓΑΤΙΚΑ ΑΤΥΧΗΜΑΤΑ ΠΕΡΙΟΔΟΥ 2006 - 2017



1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# Personal Protective Equipment (PPE)



Various measures are employed to reduce the number of accidents:

- At government level
- At industry level
- At company level (HSE Plans, risk assessments, Safety Officer, toolbox talks, PPE, training etc.)

Minimum PPE for a construction site

## High-Visibility Clothing

We use high-visibility clothing to be easily noticeable (**conspicuous**) to other workers or adjacent traffic.

**Being conspicuous, reduces the number of situations where people are not seen and accidents happen.**

## 1. Accidents at Work

2. OptiColor Project

3. Ideal Outcome

4. Collaboration with RISE

5. About S-Innovations

6. Offshore Construction  
and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση

Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# Color of High-visibility Clothing



1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# Color of High-visibility Clothing



1. Accidents at Work
2. **OptiColor Project**
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



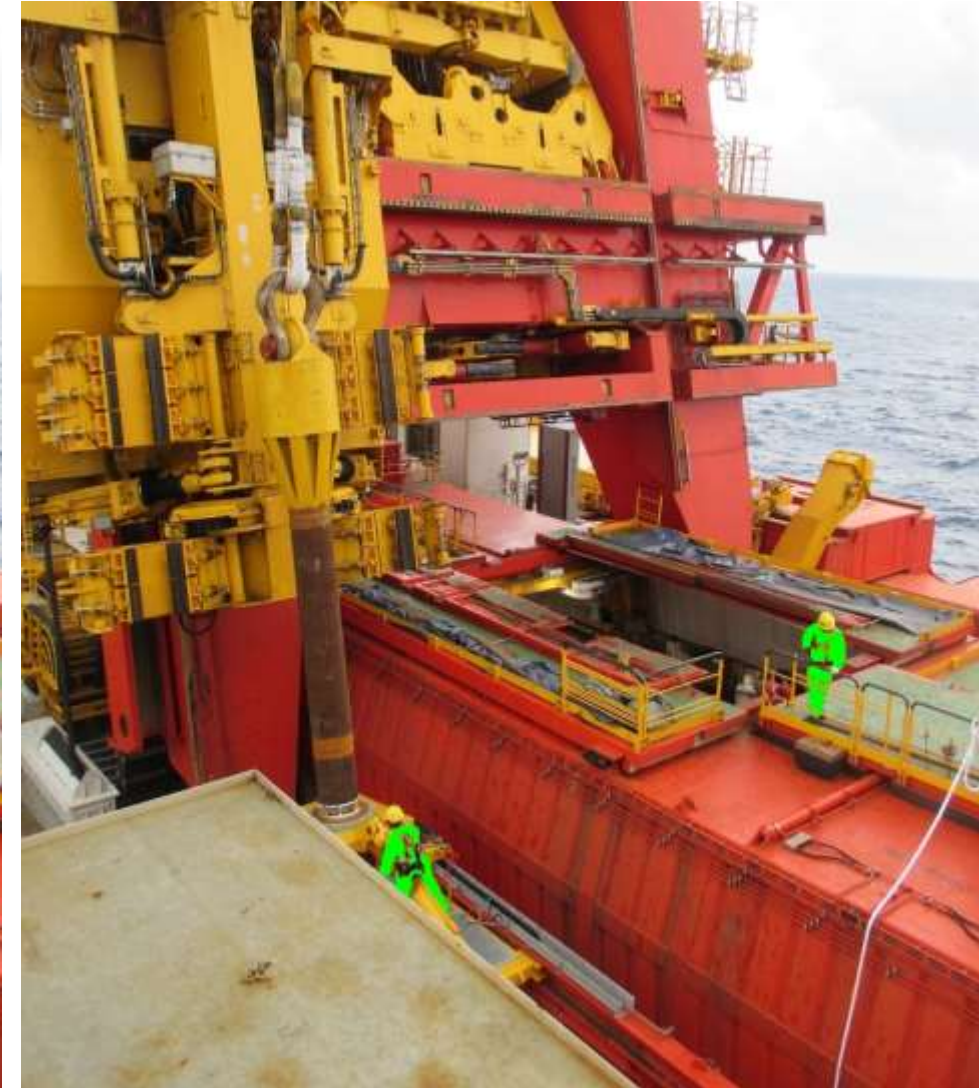
Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# OptiColor Project - Problem to solve

**Safety color are not always the optimal.** In some cases the result is the opposite.  
Camouflage.



1. Accidents at Work
2. **OptiColor Project**
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



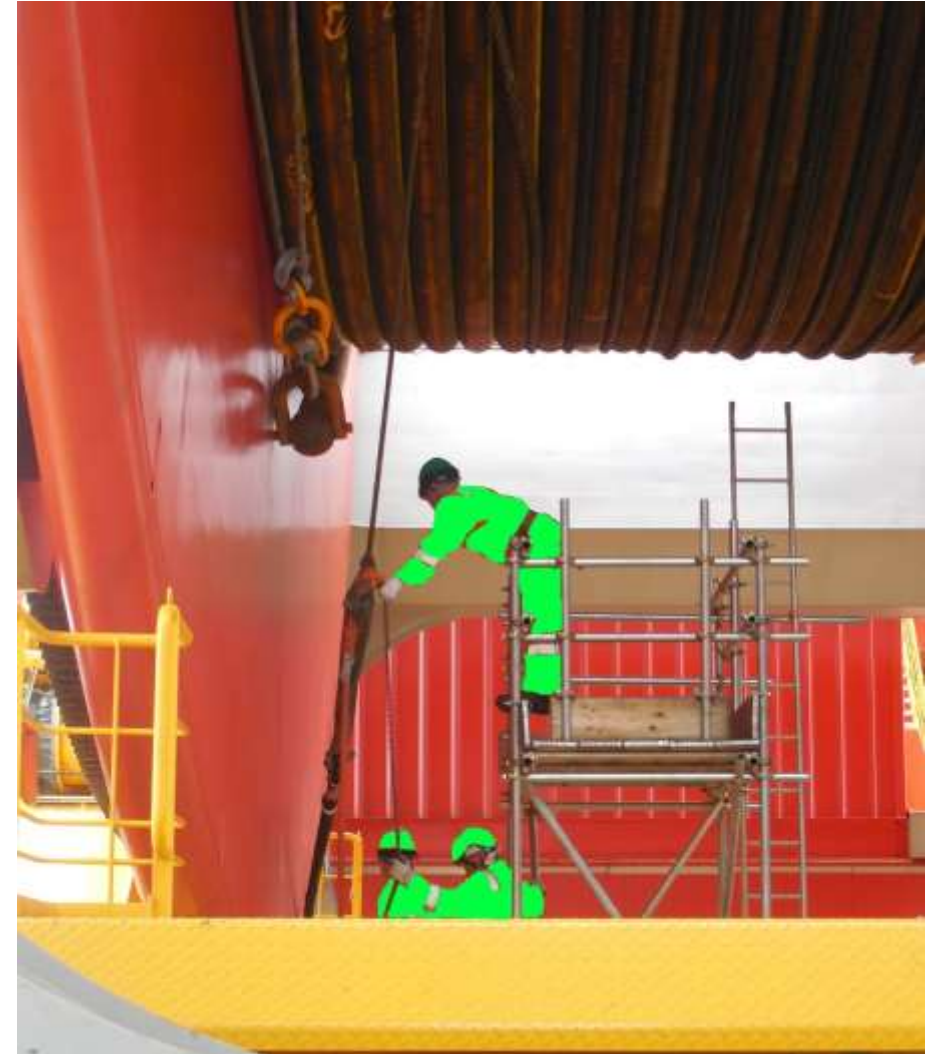
Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# OptiColor Project - Problem to solve

**Safety color is not always the optimal.** In some cases the result is the opposite.  
Camouflage.





1. Accidents at Work
2. **OptiColor Project**
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



# Project General Objective

Formulate a generally applicable methodology for determining the optimal safety color for a specific worksite. The color with the most contrast to the environment. Personnel to be more conspicuous.

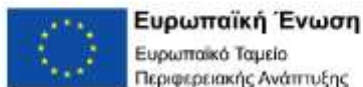
## Main Deliverables

1. A software application that will analyze pictures from a specific work environment and determined the **optimal safety colour**.
2. Concept Validation: Tests to measure the effectiveness of the developed methodology.
3. Develop a background-foreground color combination matrix for practitioners. Make it easy for Safety officers to select the optimal safety color.

	Blue	Green	Red	Yellow	Orange	Magenta
Blue						
Red		Very Good		Good		
Blue						

1. Accidents at Work
2. **OptiColor Project**
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



# Project Cost – Schedule - Collaboration

**Budget:** 40,000 € (EAC Cost: 30-35 k)

Co-funded by the Research Promotion Foundation (ΙΡΕ) - 70%

Horizon 2016 - **PROOF OF CONCEPT**

**Duration:** 6 months

**Work Packages:**

- **WP1** - Project Management
- **WP2** - Dissemination Activities
- **WP3** - Literature study
- **WP4** - Software Development
- **WP5** - Concept Validation

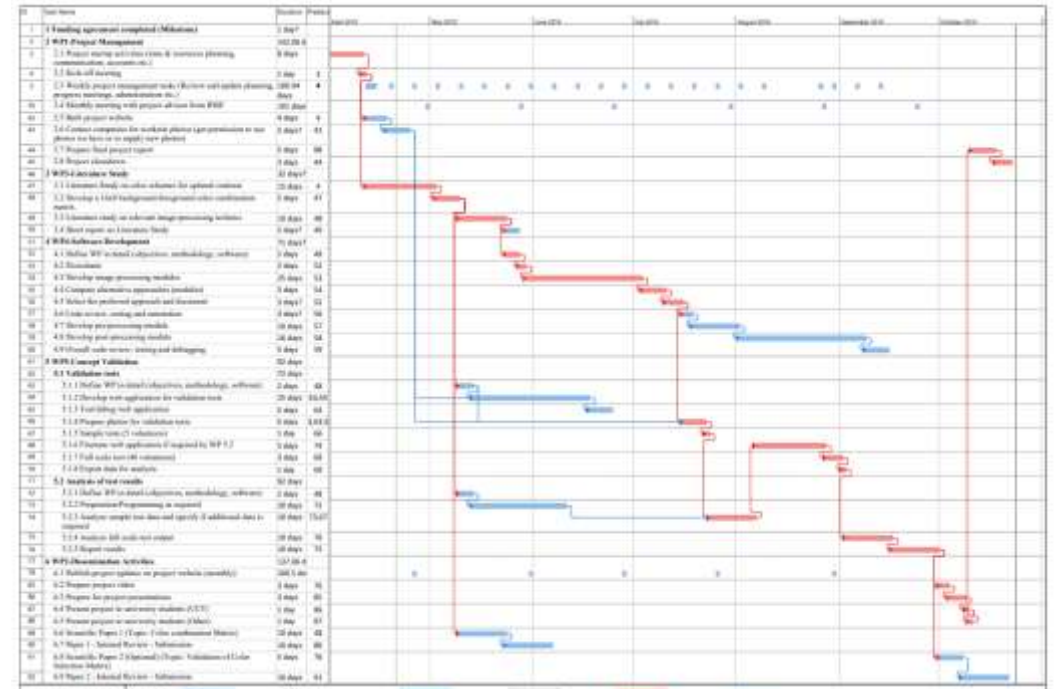
Collaboration with RISE for WP5

Thank you!!

- RPF
- RISE

More info on  
Project's  
Website

<http://www.optimalsafetycolor.com>



1. Accidents at Work
2. **OptiColor Project**
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



# Website: [www.optimalsafetycolor.com](http://www.optimalsafetycolor.com)

[www.optimalsafetycolor.com/work-package-1-project-management/](http://www.optimalsafetycolor.com/work-package-1-project-management/)

## Optimal Safety Color

[Home](#)

[WP1](#)

[WP2](#)

[WP3](#)

[WP4](#)

[WP5](#)

## Work Package 1: Project Management

**Status:** Ongoing

The objectives of WP1 are:

1. Keep the project on track with regards to scope, schedule and cost.
2. Handling communication with Research Promotion Foundation (RPF) and taking all necessary actions to comply with the obligations arising from the co-funding agreement.
3. Handling communication with RISE to coordinate the scope subcontracted to RISE as per the cooperation agreement.

## Relevant Documents

### 1. Project Schedule (Gantt Chart)

[2019-04-02: Opticolor Project Planning](#)

[2019-06-03: Opticolor Project Planning \(revised\)](#)

### 2. Monthly Meetings – Agenda and MoM

[April-Monthly-Meeting-MoM-2019-04-23](#) [Download](#)

[May-Monthly-Meeting-MoM-2019-05-28](#) [Download](#)

### 3. Issues Log

[Issues Log](#)

1. Accidents at Work
2. **OptiColor Project**
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

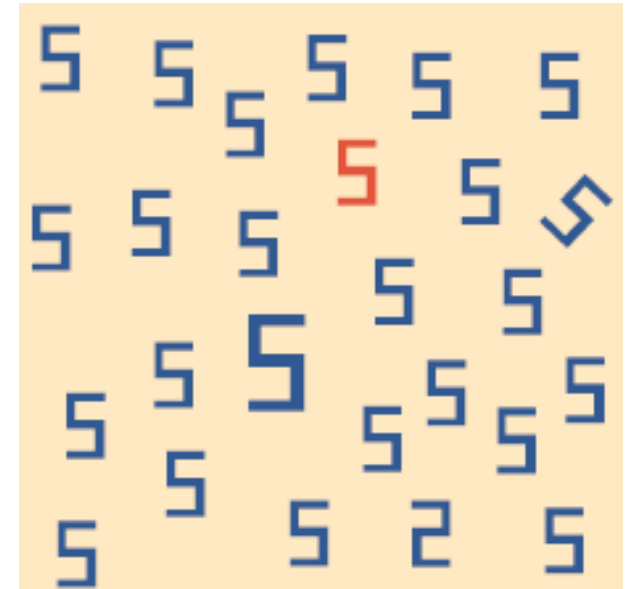
## WP3 - Literature study

The fundamental knowledge spans in several scientific fields:

1. **Visual Search**, investigates how people located target objects amongst background objects (or distractors) in a visual scene.
2. **Visual Attention**, investigates what objects attract attention in a visual scene.
3. **Road Traffic Safety**, where specific field studies have been contacted to investigate high-visibility apparel improve consciousness and reduced accidents rate.
4. **Worksite Safety**, where specific field studies have been contacted to investigate how high-visibility apparel improve consciousness and reduced accidents rate.
5. **ISO, EN Standards**

**Myriads of references supporting that color is amongst the main attributes affecting visual search, attention, and safety.**

- Colour
- Motion
- Orientation
- Size



1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd

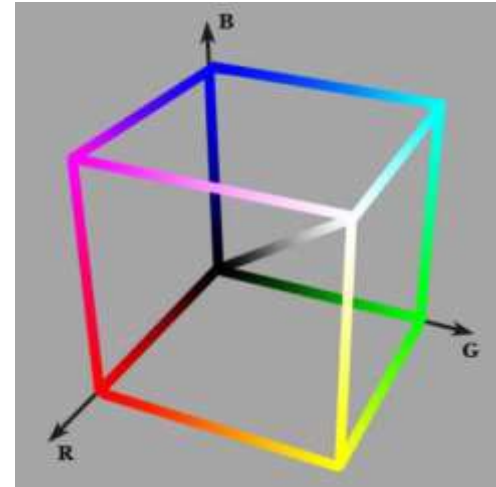


## WP3 - Literature study

ISO EN 20471:2013 - High visibility clothing Standards for Safety Apparel specify only three colors:

- Fluorescent yellow
- Fluorescent orange
- Fluorescent red

Restricts optimization



Expand safety color pallet

Safety Colors Pallet (6)

	Color	RGB
1	Fluorescent red	(255, 0, 0)
2	Fluorescent green	(0, 255, 0)
3	Fluorescent Blue	(0, 0, 255)
4	Fluorescent yellow	(255, 255, 0)
5	Fluorescent orange	(255, 160, 0)
6	Fluorescent Magenta	(255, 0, 255)



1. Accidents at Work
2. **OptiColor Project**
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# WP4 - Software Development

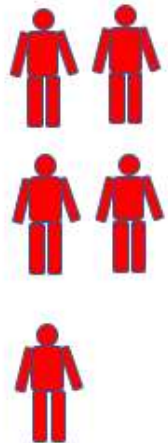
A processing algorithm using Python and OpenCV.  
Quite different approach than our RPF proposal.  
Pre-processor, post processor in the coming months

## Methodology

1. Upload images, Place and Scale Personnel Figures



- Drag,
- Drop,
- Scale



1. Accidents at Work
2. **OptiColor Project**
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# Methodology

2. Get target area for analysis



1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



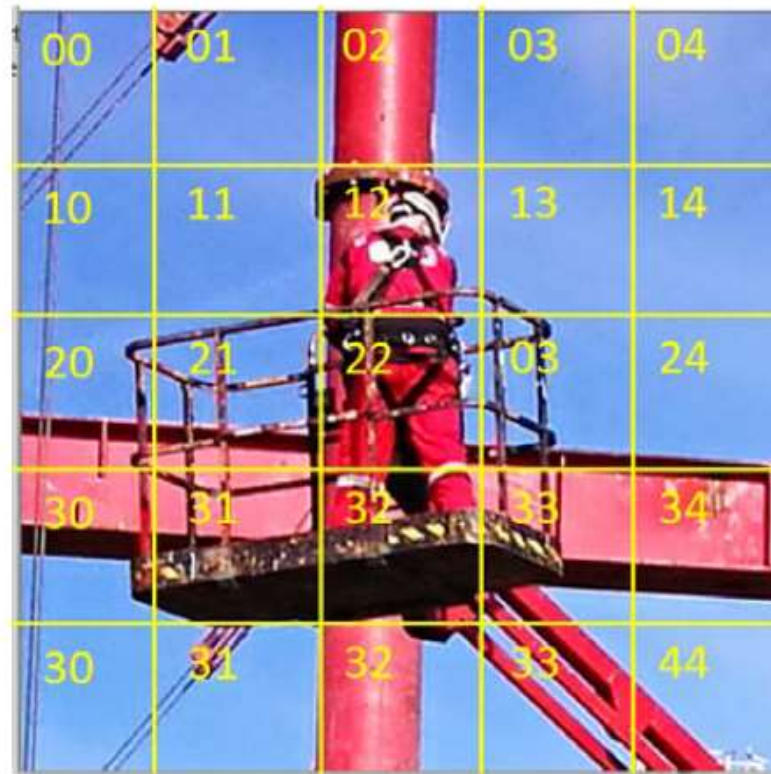
Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



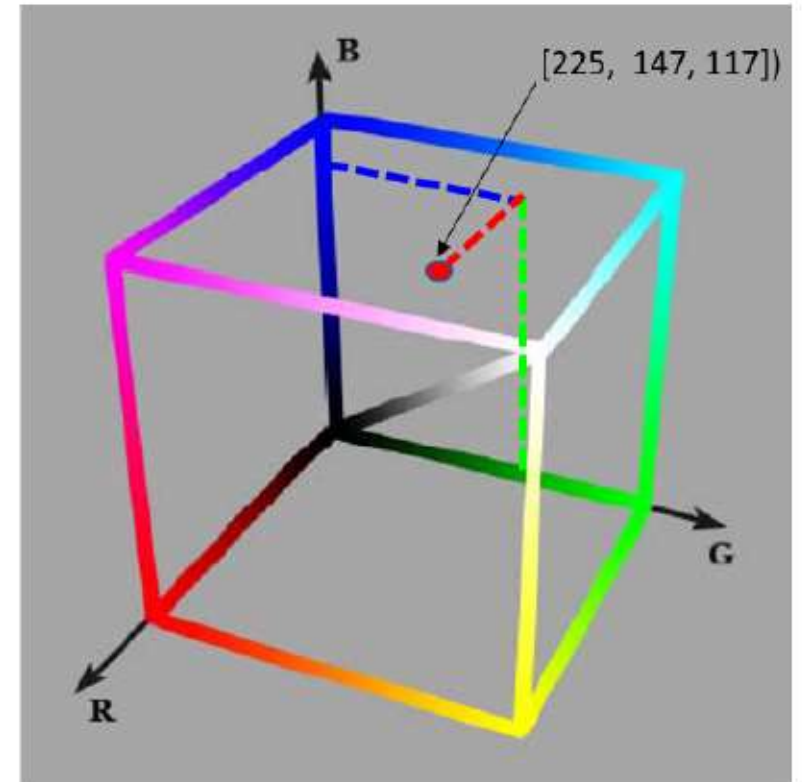
Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# Methodology

3. The target area is segmented. (e.g. In below picture we use a 5x5 grid)



4. For each segment we calculated the mean BGR. (e.g. For sub-target 00 above, the mean is [225, 147, 117])





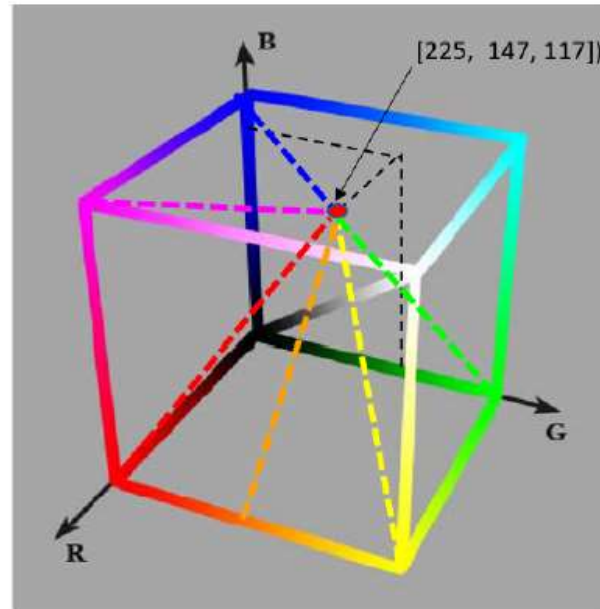
1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



# Methodology

5. For each segment we calculate the Euclidean distance to each of our six safety colors

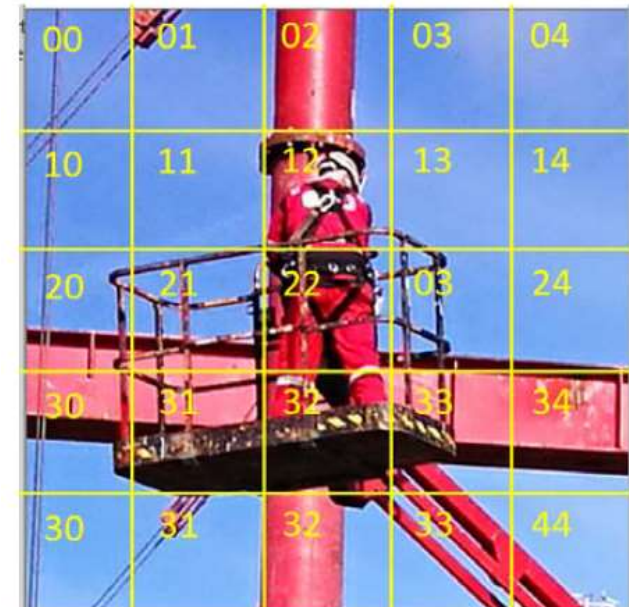


```
Safety_colors_BGR = {
  'Blue' : (255, 0, 0),
  'Green' : (0, 255, 0),
  'Red' : (0, 0, 255),
  'Yellow' : (0, 255, 255),
  'Orange' : (0, 160, 255),
  'Magenta' : (255, 0, 255),
}
```

6. For each segment we rank the safety colors in a scale 100 to 0. Below is the ranking for sub-target 00 and 01)

00	0	92.0	100.0	95.0	88.0	0
	Blue	Green	Red	Yellow	Orange	Magenta

01	0	90.0	100.0	94.0	88.0	0
	Blue	Green	Red	Yellow	Orange	Magenta



1. Accidents at Work
2. **OptiColor Project**
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



# Methodology

6. We sum all rankings by color (in this example 25 sub-targets -> 25 values per color)  
[ 816 2367 1496 1859 1210 284]

The previous step results to the overall most distant color;  
Greater distance → greater contrast  
→ Safety color more conspicuous.  
(e.g. for the above target the optimal safety color is Green)

7. Process is repeated for every target in the picture.

Several issues noticed and improvements are possible; however, since the project is merely a proof of concept we decided not to address every detail. They can be addressed in a future commercial version.

1. Accidents at Work
2. **OptiColor Project**
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

## WP4 – Concept Validation

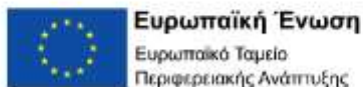
Prepare 40 sets of test images. Each set will have one unprocessed image and one processed image. Volunteers will be presented either the process or the unprocessed and they will be asked to spot (click) personnel on worksite pictures.

Measure the search time, i.e. the time needed to spot the people on the picture. Along with other metrics we will assess the effectiveness of our optimal colour concept.



1. Accidents at Work
2. OptiColor Project
- 3. Ideal Outcome**
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



# Ideal Long-term Outcome, Scientific

1. Adoption of the background-foreground color combination matrix by practitioners

	Blue	Green	Red	Yellow	Orange	Magenta
Blue						
Red		Very Good		Good		
Blue						

**2. Expand safety color pallet**

ISO EN 20471:2013, Fluorescent yellow, orange and red

**3. Application to other industries.** Adoption of the methodology for use in other industries (e.g. Shipping, Aviation, Road traffic, Agriculture)



1. Accidents at Work
2. OptiColor Project
- 3. Ideal Outcome**
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



## Ideal Long-term Outcome, Commercial

- 1) Having the knowhow and a proved concept we can proceed with the development of commercial SaaS application. The system will allow the user to upload the pictures from a specific work environment and a report will be produced suggesting the optimal color for consciousness.
- 2) Specialized Consulting Services. Specialized consulting services for determining optimal color schemes to enhance safety. Clients can be large construction companies, factories, shipyards, airport, ports, oil companies, shipping companies etc.

1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
- 4. Collaboration with RISE**
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



## Collaboration with RISE

- Discover RISE on the internet.
- Prompt response and establishment a collaboration in the form of provision of services.
- RISE is developing the software application for the validation test WP5 and will evaluate the test results.
- Monthly meetings and free expert advice by with Dr. Antreas Lanitis.

1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. **About S-Innovations**
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



# About S-Innovations Ltd

Established in 2016

Development and commercial exploitation of innovative products/services.

Office & Workshop at Paphos: PCs, Lathe, 3D Printer, Laser Cutting, Various tool

	2016	2017	2018	2019 estimate
<b>Turnover</b>	0	47,700 €	176,000 €	50,000 €
<b>No Personnel</b>	1	2	2	2

## Technical Advisor Services

During 2017 and 2018, alongside our R&D activities we decided to earn money to finance our R&D activities by offering advisory services to companies that want to use our expertise. We have provided project coordination/supervision and quality control services for offshore construction projects. (Huisman, Dolwin 3, Aberdeen Offshore Wind Farm)

## Innovation Projects

2016, 2017: [www.innovationcyprus.com/innovation-projects-cyprus](http://www.innovationcyprus.com/innovation-projects-cyprus)

2018: Offshore Construction: Fabrication (Welding), Transport and Installation.

## Innovation Focus

2019 onwards: Offshore Construction (Software Applications)

# Offshore Oil & Gas

## 1. Exploration

## 2. Development

## 3. Production



- Seismic Surveys
- Exploration Drilling



- Exploration Drilling
- **Offshore Construction**



- Operation
- Maintenance



# What is Offshore Construction?

The construction, transportation and installation of Offshore Structures

**1. Fabrication**

**2. Transport**

**3. Installation**



# Fabrication

**1. Fabrication**

2. Transport

3. Installation



# Transport

1. Fabrication

**2. Transport**

3. Installation

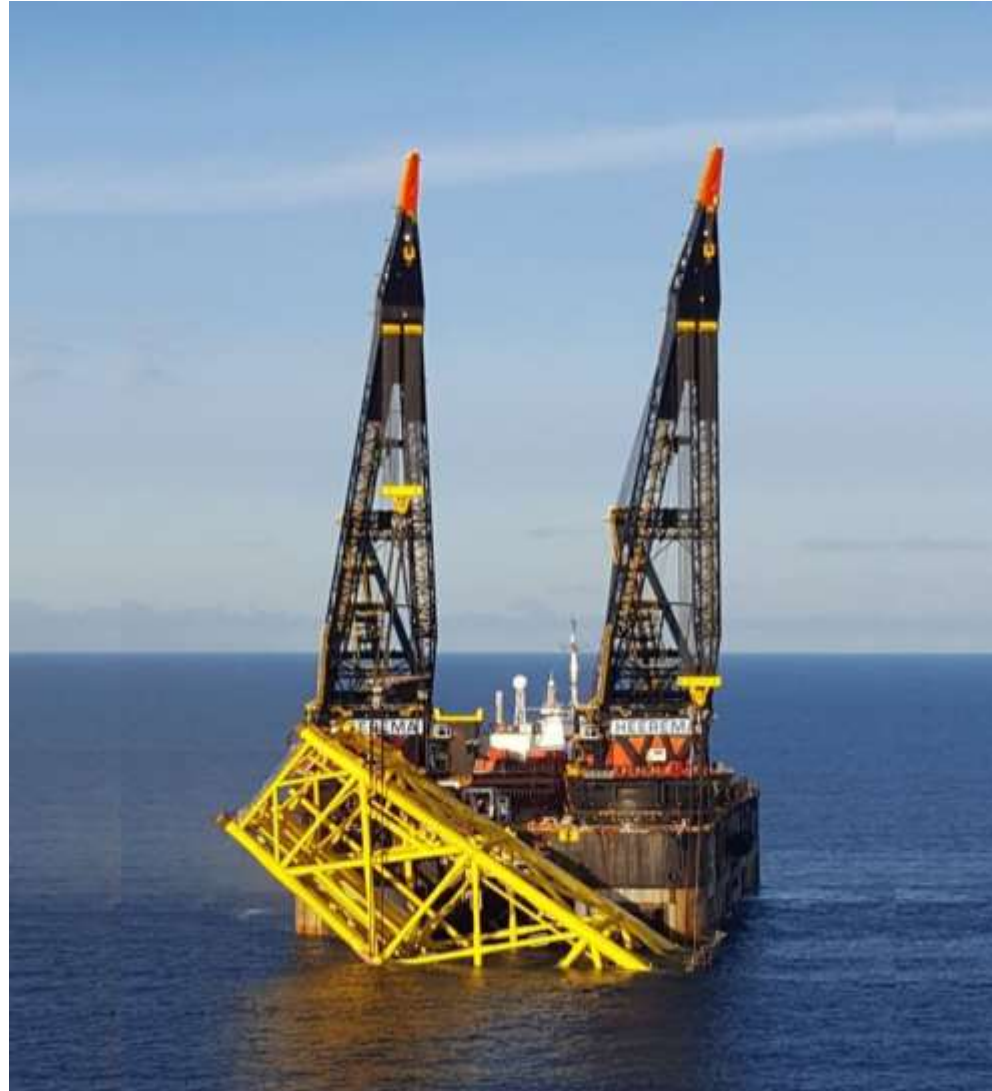


# Installation

1. Fabrication

2. Transport

**3. Installation**



1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
- 6. Offshore Construction and Computer Vision**

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# Computer Vision

Computer vision has not entered Oil & Gas yet – Great potential (my opinion)

Computer Vision APIs – Google (GCP), Microsoft (Azure), Amazon (AWS), waiting for developers to develop.

Offshore: Limited Internet Bandwidth

Offshore Industry with High R&D Expenditure



1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. **Offshore Construction and Computer Vision**

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# 1. POB Monitoring

## POB (Persons on Board) Solutions

### Weekly Mustering Drill

- Muster List
- Magnetic Cards
- Bracelets

Waiting for everybody....

### Computer Vision Solution

CCTV, Constant monitoring of crew location.



1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. **Offshore Construction and Computer Vision**

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

## 2. Suspended Load Alarm



Camera: Boom Tip, Hook  
**Computer Vision Solution**  
Set safety circle - Sound Alarm



1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. **Offshore Construction and Computer Vision**

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

### 3. Winch Winding Alarm



Winch camera

On a crane, serious damage can be caused by incorrect winding of a rope. The MDC3 can provide an optimum view of the winch in real time. Through monitoring of the winch, costly damage to the rope can be avoided and downtimes reduced.

**Computer Vision Approach**  
CCTV, Constant monitoring of  
winch winding  
(5 or more winches per crane)





1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
- 6. Offshore Construction  
and Computer Vision**

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση

Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

## 4. Automatic Welding and welding inspection



1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. Offshore Construction and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

## 5. Subsea Work - ROV

<https://www.youtube.com/watch?v=b7lpXxkhse8>

The image shows a YouTube video player interface. The video content is split into two parts. The top part shows a yellow ROV with 'ROVCO' branding working on a large, complex metal structure, likely an offshore oil or gas platform. The bottom part shows a close-up of the ROV's mechanical arm and gripper, illuminated by a bright green light, as it works on a component of the structure. The YouTube interface includes the channel name 'Rovco Subsea' with 19 subscribers, navigation tabs for HOME, VIDEOS, PLAYLISTS, and CHANNELS, and a list of uploads. The first upload is 'Rovco Company Overview' (1:31, 290 views, 4 months ago). The second is 'Rovco SubSLAM X1 Jacket Reconstruction' (2:12, 171 views, 4 months ago). The third is 'Rovco T...' (165 views). A 'Rovco Company Website' link is visible in the top right corner of the video frame.

1. Accidents at Work
2. OptiColor Project
3. Collaboration with RISE
4. Ideal Outcome
5. About S-Innovations
- 6. Offshore Construction and Computer Vision**

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία

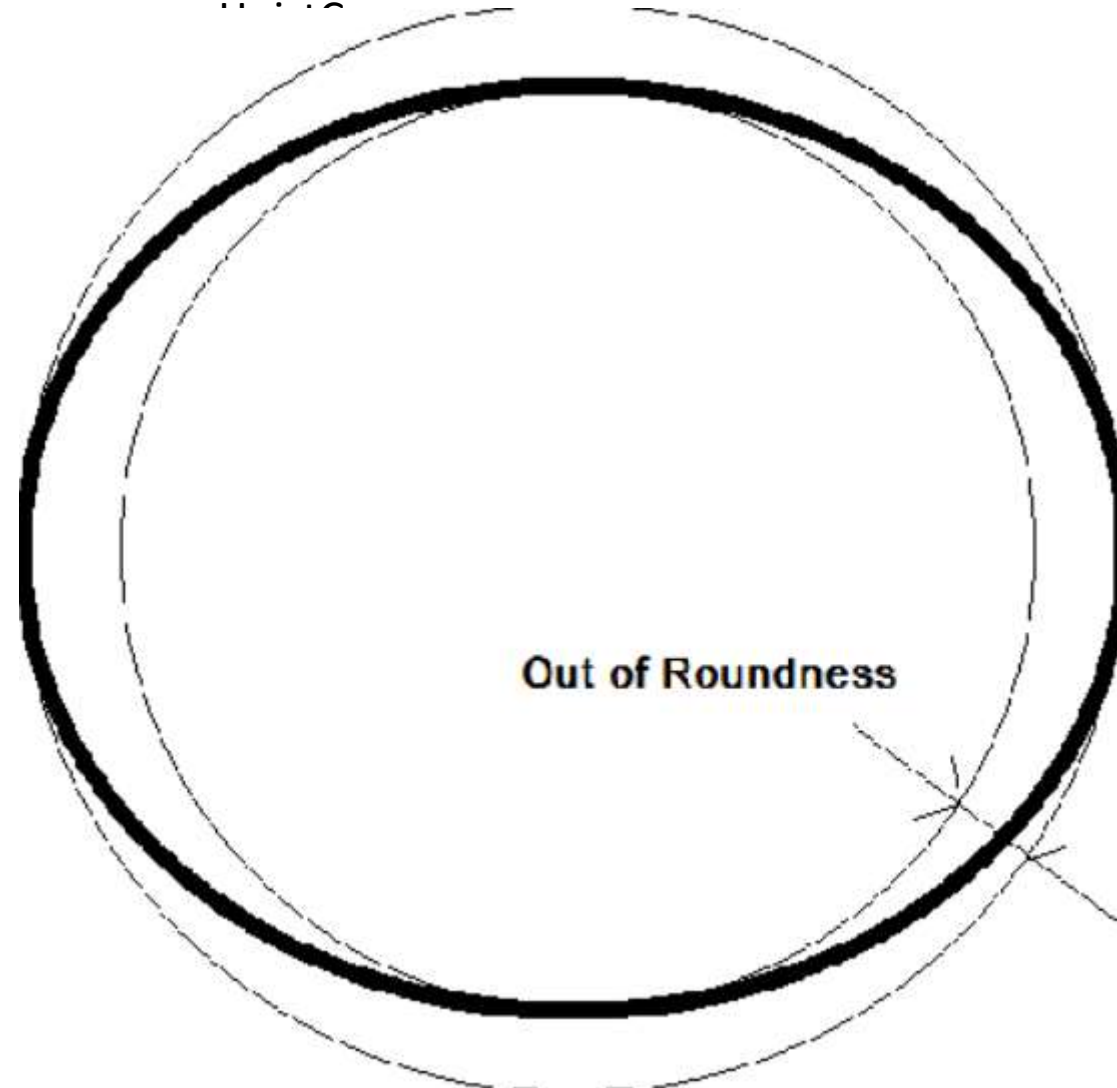


Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

## 6. Ovality Checks



1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
6. **Offshore Construction and Computer Vision**

Achilleas Mina  
S-Innovations Ltd

# PPE Monitoring (Safety Officer)

<https://www.youtube.com/watch?v=pL-c00M2CnI>



Recognize hard hats, safety goggles, high visibility vests, protective boots and other required safety equipment. Recognize if workers are wearing protective harnesses when working height. PPE violation, it can notify site safety officer in real time. **(Agmis, Lithuania)**



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

1. Accidents at Work
2. OptiColor Project
3. Ideal Outcome
4. Collaboration with RISE
5. About S-Innovations
- 6. Offshore Construction and Computer Vision**

Achilleas Mina  
S-Innovations Ltd



## Possible Future Collaboration

### 1. Assistance with Students graduation thesis

- Propose a topic and support the student.
- Facilitated contact with Offshore Contractors, welding equipment manufacturers.

### 2. Funded Projects (not actively seeking)

- A. Topic in the content of Offshore Construction
- B. Easy to commercialize
- C. Software not physical product
- D. Niche market with identified costumers
- E. Time to market: less than 1 years
- F. Ideally, team to include one potential customer

## 1. Accidents at Work

2. OptiColor Project

3. Ideal Outcome

4. Collaboration with RISE

5. About S-Innovations

6. Offshore Construction  
and Computer Vision

Achilleas Mina  
S-Innovations Ltd



Κυπριακή Δημοκρατία



Διαρθρωτικά Ταμεία  
της Ευρωπαϊκής Ένωσης στην Κύπρο



Ευρωπαϊκή Ένωση

Ευρωπαϊκό Ταμείο  
Περιφερειακής Ανάπτυξης

# Color of High-visibility Clothing

