



# **CREDO AND SCHOOLS**

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**CREDO Visegrad Workshop 2019**



# TODAY'S SESSION

## TOPICS TO BE DISCUSSED

"Particle Hunters" Competition

Filter in the competition and CIR\_003

CREDO user interface

# "PARTICLE HUNTERS" COMPETITION

## DEDICATED TO

Institutions of education (schools, university )

## ASSUMPTIONS / GOALS

Increasing the activity of (young) people through team detection of cosmic rays using the CREDO Detector application

## MONITORING AND ANALYSIS

Daily update of results using filters created in the first edition of the competition (2018/2019)

# "Particle Hunters" statistics (I edition) 3.10.2018 - 31.06.2019

## ACTIVE TEAMS

60 teams

## WORKING TIME

In the CREDO Detector application,  
from 3/10/2018 to 30/06/2019  
286 126 hours ~ 32.3 years

## ACTIVE USERS

1203

## GOOD / ALL DETECTION

450 386 / 1 791 078  
25.15%





# "Particle Hunters" statistics (II edition) 1.10.2019 - 20.11.2019

## ACTIVE TEAMS

55 teams

## WORKING TIME

In the CREDO Detector application,  
from 1/10/2019 to 20/11/2019  
46 710 hours ~ 5.5 years

## ACTIVE USERS

570

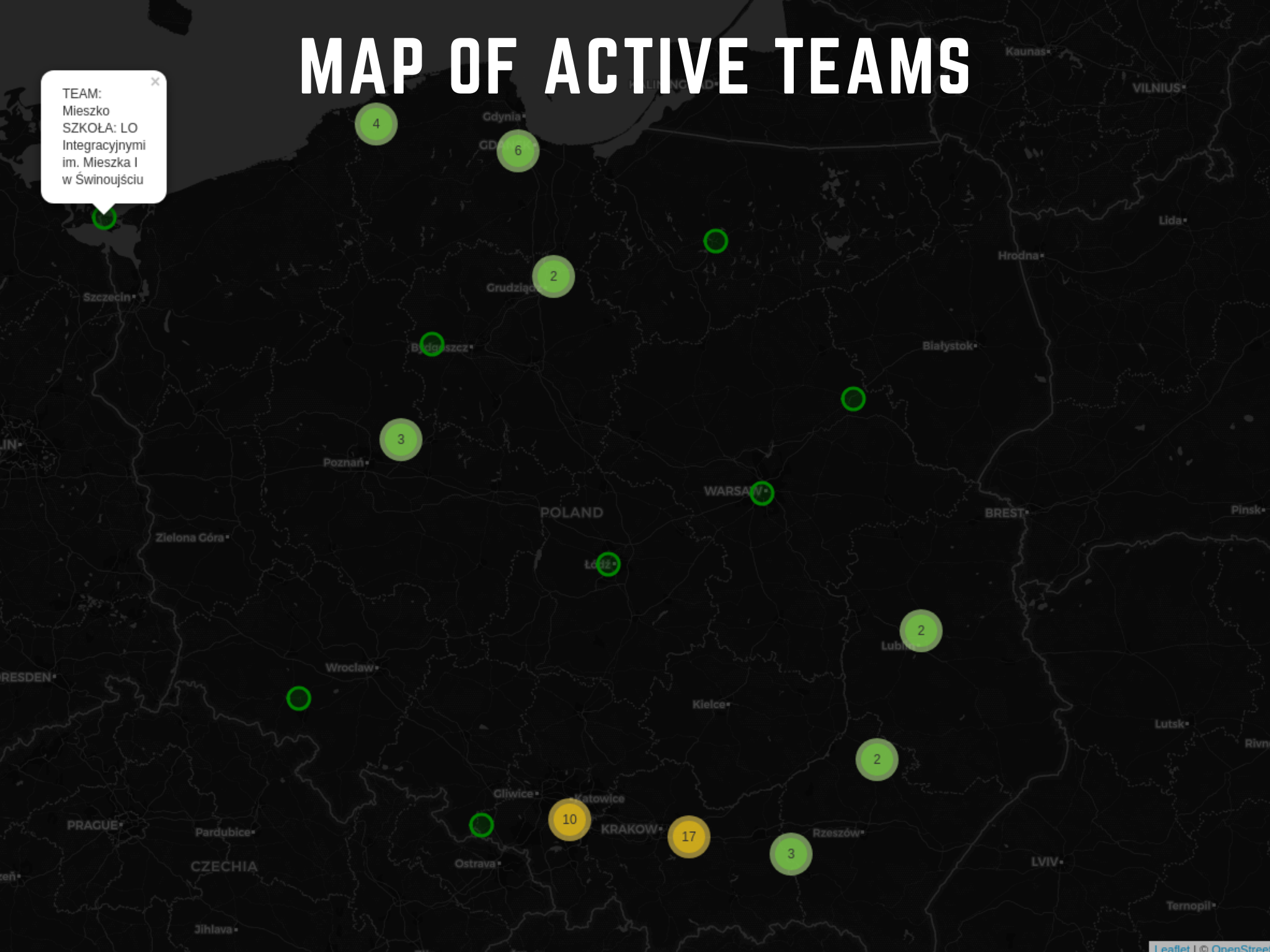
## GOOD / ALL DETECTION

58 659 / 292 638  
20.04%



# MAP OF ACTIVE TEAMS

TEAM:  
Mieszko  
SZKOŁA: LO  
Integracyjnymi  
im. Mieszka I  
w Świnoujściu



# ANTI-ARTIFACT FILTER

## HOW DOES IT WORK?

### KNOWLEDGE

Camera matrix size:  $20 \text{ mm}^2$   
Chance to detect muon with such  
a matrix size: one in six min  
Size of local radiation:  
50 times more

### FREQUENCY

Max muons per hour: 10  
Max local radiation:  $10 \times 50 = 500$   
Detection per minute:  $< 10$

### BRIGHTNESS

Good detections cannot be too  
dark or too bright.

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Minimum brightness of the  
brightest pixel: 70  
Minimum bright pixels: 1  
Maximum bright pixels: 70

# ANTI-ARTIFACT FILTER

## WHERE FIND?

1

GO TO OUR PROJECTS IN  
INTERNAL (REDMINE)  
[HTTPS://CREDO2.CYFRONET.PL/  
REDMINE/PROJECTS](https://credo2.cyfronet.pl/redmine/projects)

2

CLICK IN CIR REPOSITORY  
(CREDO INTERNAL REPORTS )

3

GO TO OPTION "DOCUMENTS"  
AND CHOOSE: CIR\_003\_2019 -  
HISTOGRAM ANALYSIS OF  
DETECTIONS ..

4

OR GO TO DIRECT LINK  
[HTTPS://CREDO2.CYFRONET.P  
L/REDMINE/DOCUMENTS/28](https://credo2.cyfronet.pl/redmine/documents/28)



**THE FUTURE BEGINS WITH US**



**CREDO USER INTERFACE**

# CREDO USER INTERFEJS

## Goals and purpose

### EDUCATION

A place where there will be various educational materials

### GAMIFICATION

Using game elements to motivate users

### DETECTION

All information and items you need will be here



## Publiczne menu

START



Strona informacyjna



Strona Główna



PROJEKT CREDO



O projekcie

Oficjalna strona

CREDO MEDIA



Logo

Publikacje



Filmy



FAQ



Aplikacja

Konkurs

Interfejs

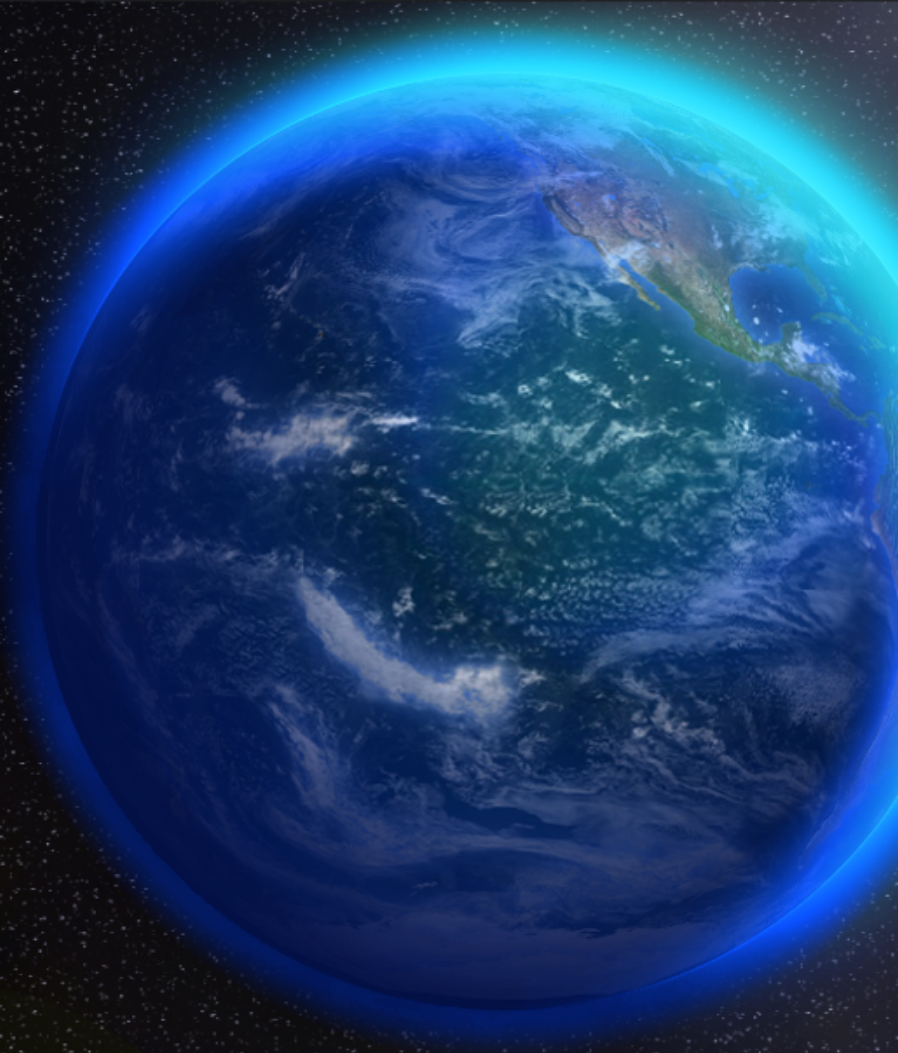
REJESTRACJA



Interfejs użytkownika CREDO - Wszystko co najważniejsze w jednym miejscu

The interface has two drop-down menus.

The menu on the left is public and does not require logging in





nym miejscu.



The menu on the right is only for logged in users  
and contains all the elements presented earlier  
(education, gamification, detection)

## Menu dla zalogowanych

### UŻYTKOWNIK



Dane



Detekcje



Stan konta



Tutorial



Strefa Osiągnięć



Mapa



Ciekawostki i cytaty



### RANKINGI



Użytkowników

Zespołowe

### KONKURS



Mój zespół

LIGA

MARATON

Obecny sezon

### UWAGI



### EDUKACJA



Filmy





# STATUS OF USER INTERFACE



## TEST PHASES

The interface is still being tested and the modules are being improved.



## ADRES

<https://user.credo.science/user-interface>



## LANGUAGE

At the moment is only Polish, but there are plans to add English, maybe other languages.





**LET'S GO SEE THE USER INTERFACE**




# **WANT HELP? CONTACT US**

## **EMAIL**

[contact@credo.science](mailto:contact@credo.science)

[slawekstu@gmail.com](mailto:slawekstu@gmail.com)



**"People working together as one group can make things, the achievement of which not dreamed anyone individually"**