



# National partners and inspiration day

**August 26th, 2022 - Space Expo Antwerp** 



# National partners and inspiration day



#### **Day programme**

9.30h	Arrivals
10.00h	Welcome + intro ESERO Belgium
10.45h	10-min short keynotes by some partners
12.00h	Lunch, discussion time, short Expo visits
13.30h	Pitch session: 120 seconds and 1 slide per project/activity
14.30h	Continue discussions while walking around in the expo
15.30h	Share highlights of discussions on the stage Concluding remarks
16.00h	Drinks and Expo visits

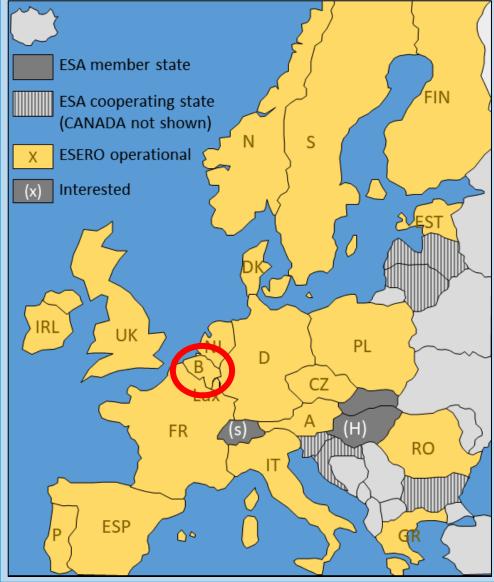
### INTRODUCTION



- 1. ESERO Belgium in general
- 2. French & German speaking Communities
- 3. Flemish Community
- 4. Six STEM projects for Belgian schools



### **ESERO** Belgium in general



#### **ESERO Belgium**

Since 2007 New Belgian host since 2021 Partnership
ESA Education
BELSPO
National hosting consortium





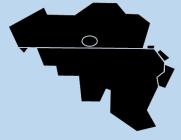




### **ESERO Belgium in general**



### **ESERO** Belgium consortium



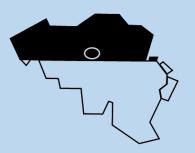
















### **ESERO Belgium in general**



What we do

**Teacher training & support** 

**Classroom resources** 

**STEM challenges / School projects** 

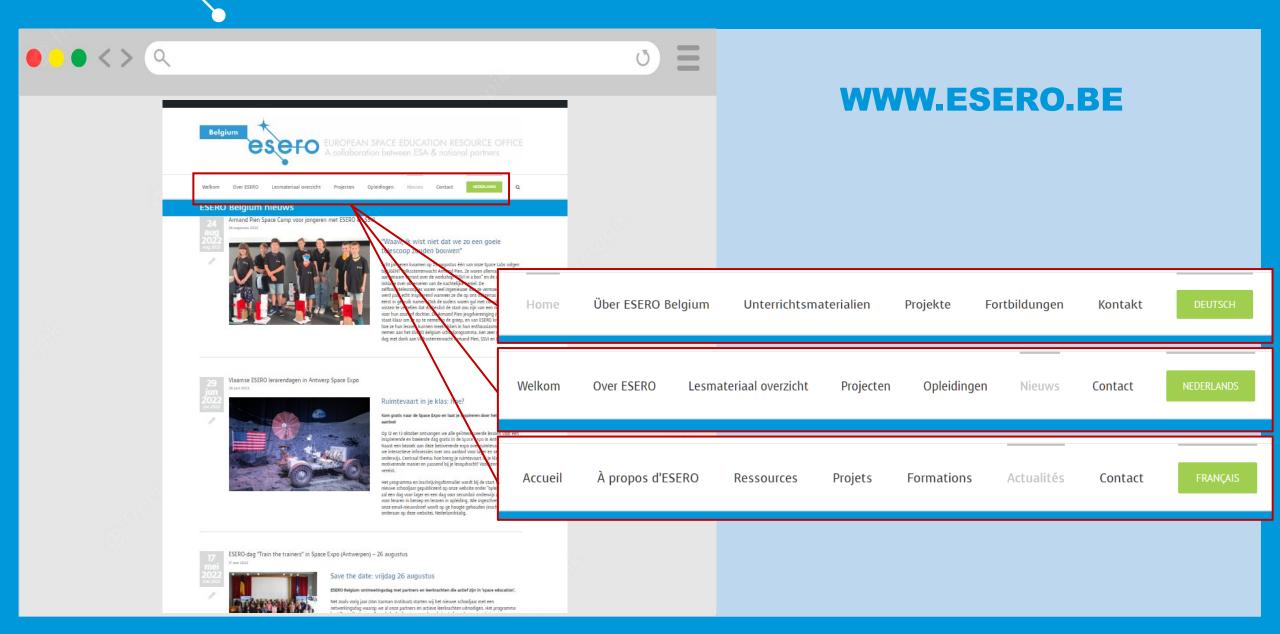
**Space education events** 

Workshops and awareness events

Active network space & education in all Belgian communities



### **ESERO Belgium in general**



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## esero

### French & German speaking Community









Ministerium der Deutschsprachige Gemeinschaft Belgiens.













**LIÈGE** université

















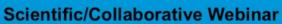


### French & German speaking Community

### Continuous Professional Development

#### Training/Workshop

Teacher Training
Primary & secondary schools
Preservice teacher
Schools/University



Scientific Webinar – Space topic Webinar teachers present ESERO activities to colleagues

#### Projects/Network

Community
ESERO Projects
Co-Construction
ESERO network







#### Scientific/PhD Student Mentorship

Scientific/Teacher
PhD Student/Class = Role model
Network University/Company



Help Desk Wednesday PM.

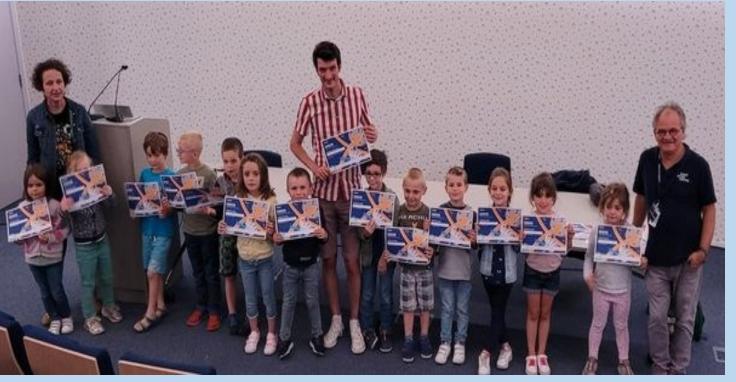


# esero

### French & German speaking Community

### Support on Line primary Schools Teachers - Missions X





# esero French & German speaking Community

German-speaking Belgian winners of Climate Detectives at Living Planet Symposium in Bonn





### French & German speaking Community

Two secondary schools: Spatial option







### French & German speaking Community

# Train the future teachers and explain to the Minister





### French & German speaking Community

### Meet the star of the stars







### French & German speaking Community



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### **Flemish Community**

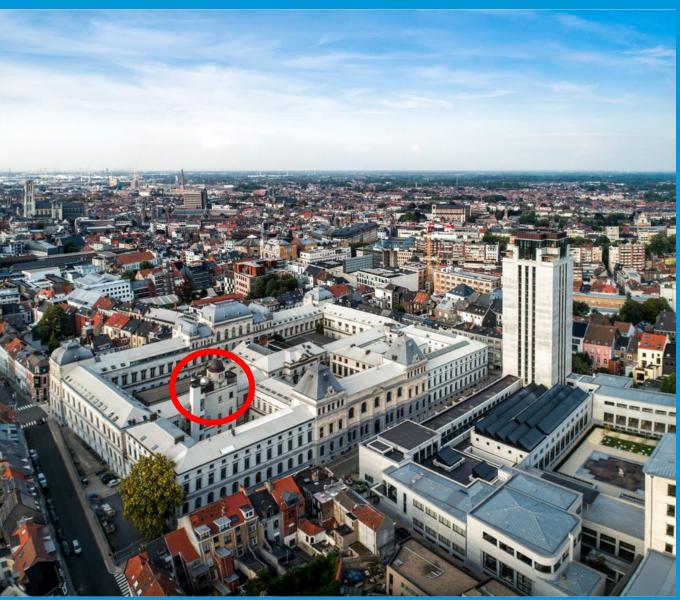




### **Flemish Community**

### **UGent Public Observatory Armand Pien**









**6 Public Observatories** have a formal role in the Flemish **STEM education** and **science communication** 









#### **Education**

School visits \*
Classroom workshops \*
Classroom support \*
Teacher trainings \*

#### **General public**

Public evenings
Lectures & presentations
Initiations and intensive courses
Online thematic community
Large events

→ (science communication & education)
Citizen Science projects
STEM literacy and awareness projects ★

#### **Youth**

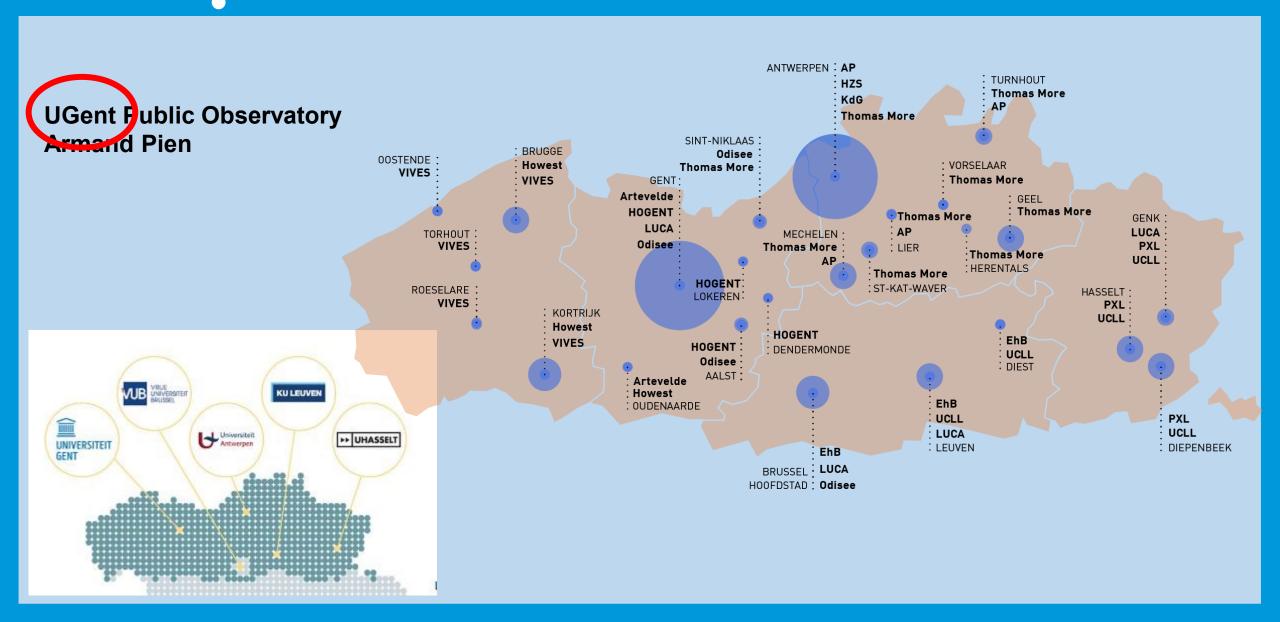
STEM academies \*
Youth club \*
Summer camps \*

#### **Working groups**

Astrophoto
Meteo
Space Flight
Telescopes and observations

#### Media

Thematic newsletters
Social media communities
Audio & video channels, blogs





#### **ESERO** programme

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Implementation of 2 recent policy choices in the FL Community

#### **STEM AGENDA 2030**

STEM-AGENDA 2030

STEM-COMPETENTIES VOOR EEN TOEKOMST- EN MISSIEGERICHT BELEID



#### Impuls programme Space flight

#### Persbericht Hilde Crevits

Viceminister-president van de Vlaamse Regering & Vlaams minister van Economie, Innovatie, Werk, Sociale economie en Landbouw

Minister Crevits lanceert programma Vlaamse Ruimtevaarteconomie en Frank De Winne onderzoeksbeurzen

Vlaams minister van Werk, Innovatie en Wetenschapsbeleid Hilde Crevits lanceert het programma 'Vlaamse Ruimtevaarteconomie'. Voor de komende 5 jaar wordt in 11 miljoen euro voorzien. Hiermee wil minister Crevits de ruimtevaartkennis in Vlaanderen uitbreiden, ondernemerschap stimuleren en met de aanwezige expertise onze internationale positie versterken. Met de nieuwe Frank De Winne onderzoeksbeurzen wil minister Crevits ook jong talent aantrekken voor het Vlaams ruimtevaartprogramma.

"De ruimtevaartsector spreekt tot de verbeelding. Het is een hoogtechnologische sector die vaak baanbrekend onderzoek oplevert. Ze is een motor voor innovatie en economische groei.

Roundian is ruimtevaart on heer toenessingen van verstein in een depolijken laven. Zonder dat

et beseffen zijn ruimte: svoorspellingen, de G het impulsprogramma 'Vlaamse ruimtevaarteconomie'

uitdagingen als klimaatverdinaering en mobiliteit aan te раккен is ruijfitevaarteconor onontbeerlijk. Met dit impulsprogramma wil ik de sector in Vlaand en kansen geven ten volle haar rol van innovator en talentenwerver te spelen."— if de Crevits

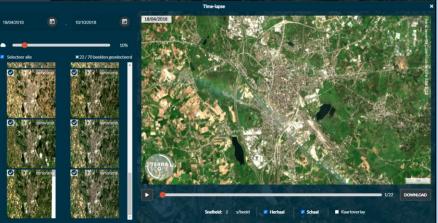
De investeringen passen binne het impulsprogramma 'Vlaamse ruimtevaarteconomie' dat focust op talent, competitiviteit, internationale samenwerking en het aanwakkeren van interesse in ruimtevaart onder de bevolking en kwam mee tot stand door het VARIO-advies Flanders Space, een strategie voor de Vlaamse ruimtevaarteconomie.



#### Flemish ESERO BE programme 2022 – Some highlights STEM projects



Climate Detectives



**CanSat** 



**Mission X** 







### **Flemish Community**

#### Flemish ESERO BE programme 2022 – Some highlights for primary education



**Target group 9-12 years old** 

- I. Intro
- 2. Solar system
- 3. Launch and land
- 4. Water
- 5. Atmosphere
- 6. Breathing
- 7. Gravity



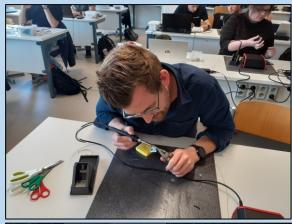
**Target group 5-8 years old** 

- 1. Planet trail
- 2. Programming
- 3. Rockets
- 4. Space suit
- 5. Starry sky

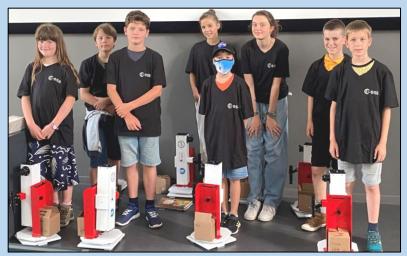


### **Flemish Community**

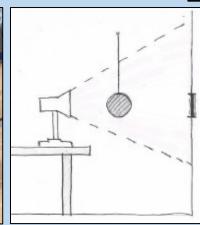
#### Flemish ESERO BE programme 2022 – Some highlights for secondary















### Flemish Community

#### Flemish ESERO BE programme 2022 – Some highlights (other)









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### **STEM projects**

#### **SCHOOL PROJECTS**

**Yearly STEM challenge** 

A space mission in the classroom

**Primary & Secondary** 

**Shared on international platforms** 

Direct teacher support by ESERO Belgium

Classroom resources



**ASTRO PI** 











TRAIN LIKE AN ASTRONAUT



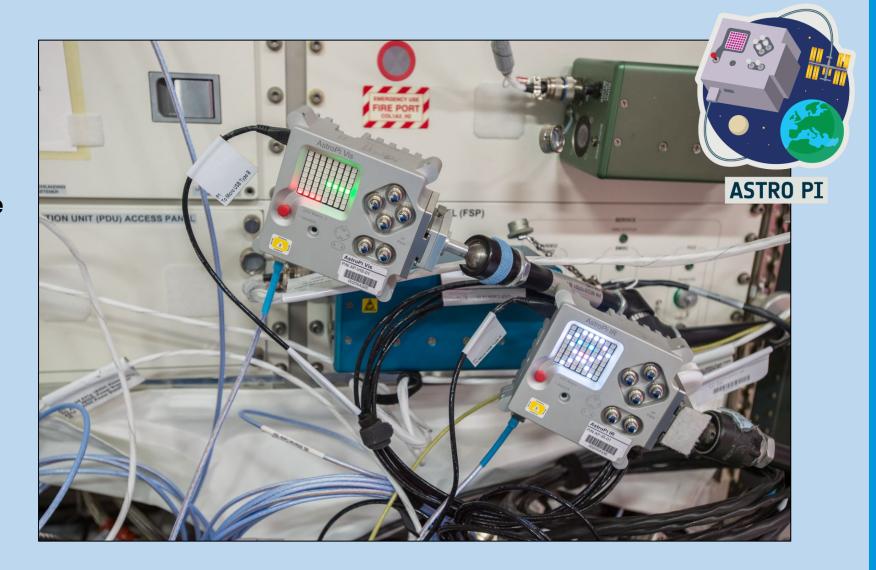
**ASTRO PI** 

All ages

Program your own code in the ISS

**Astro Pi Mission Zero**Simple measurement and message display

**Astro Pi Mission Space Lab** Science experiment in the ISS



**ESA - ESERO** 



### **STEM projects**

CanSat

16-18 years old

Satellite in a can

**Rocket launch** 

National & international competition









INNOVIRIS - WALLONIA ESA - ESERO



**Mission X** 

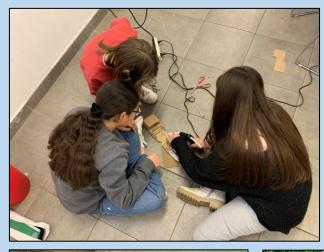
**Primary schools** 

Train like an astronaut

Walk to the Moon challenge

Physical and scientific/technical challenges

**End event in Belgium** 







**MISSION X** 



ESA – ESERO – Euro Space Center



**Climate detectives** 

8-19 years old

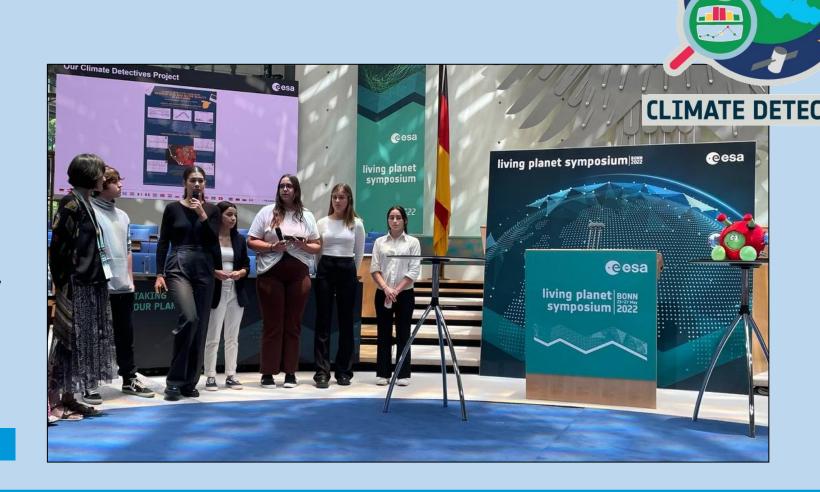
Climate research in your school region

Feedback by professional scientists

Use of satelliet data and/or ground measurements

Action plan: Make the difference

**ESA – ESERO – science institutes** 





**Moon Camp** 

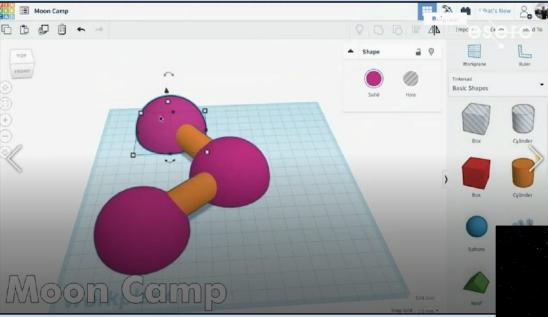
All ages

3D design your own Moon base

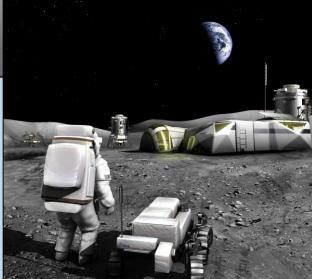
Discovery: beginners (TinkerCad)

**Explorers: intermediate** (TinkerCad)

Pioneers: advanced (Fusion360)







**ESA - ESERO** 

#### **ASGARD**

14-18 years old (also open for 10-12 yo)

Design and launch your experiment to near-space

Stratospheric balloon

No competition, teams are 'colleagues'

Launch days with workshops by scientists







ST-PIETERSCOLLEGE - KMI - ROYAL OBSERVATORY - BIRA - PLANETARIUM- ESERO BELGIUM





# National partners and inspiration day

**August 26th, 2022 - Space Expo Antwerp** 

#### THEMES FOR DISCUSSIONS

- 1. Digitalisation / Al, cybersecurity
- 2. Green society / sustainability / Climate
- 3. Moon / exploration as inspiration
- 4. Diversity / how to reach a wider target audience
- 5. Training of transversal skills and competences (entrepreneurship, innovation, "agency", ...)