



# **International Coding Elite Challenge 2023-24 CodeCombat HK-MO-TW Competition**

**Teachers' Briefing Session (Secondary Division)** 





Strategic Partners CODE COMBAT







**Sponsorship** 









**Media Partner** 



Supporting **Organizations** 



















### **Overview**



- 1. Past Competition
- 2. Competition Platform CodeCombat
- 3. Competition
- 4. Leaderboard Mechanism
- 5. Prizes
- 6. Why should the students join the competition?
- 7. Application Method
- 8. FAQ



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## ICE Challenge 2023 Review:





3,000+ Students from Hong Kong, Macau & Taiwan





**100+** Primary and Secondary Schools

**International Coding Elite Challenge** 



**200,000+** lines of code





## ICE Challenge 2023 Highlights:





### Ace of Coders 2023

- Compete with **15** other Asian regions
- e.g. Japan, Vietnam, India

#### **Hong Kong Representatives**

- Silver Medalist 慕光英文書院 萬栢麒同學
- Bronze Medalist 佛教何南金中學 肖家俊同學
- First Prize: 6
- Second Prize: 16
- Third Prize: 22









- Compete with more than **3,000** programming elites from 65 countries and regions
- e.g. U.S., British, Canada, Germany

#### **Hong Kong & Macau Representatives**

- First Prize: 18

- Second Prize: 18

- Third Prize: 5



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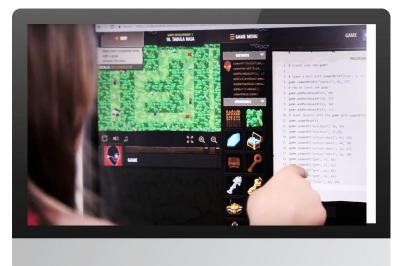




## Competition Platform - CodeCombat

- A gamified, text-based coding platform
- Developed in the US and endorsed by the College Board
- Widespread of use for education
- No. of learners: 20 million
- No. of teachers using the platform: 82,000
- No. of countries users are from: 190
- Extensive programming language
- Python
- JavaScript
- C++
- Bilingual support for English and Traditional Chinese







### Modules







Python JavaScript C++



Game Development 1-3

Python JavaScript



Web Development 1-2

JavaScript jQuery HTML/CSS

Over 370 levels in total!

## Computer Science 1-3 Learning Outcomes



# Introduction to Computer Science

- Basic Syntax
- Arguments
- Strings
- While Loops
- Variables



#### **Computer Science 2**

- Coordinate Pairs
- If Statements
- If/Else Statements
- Conditional If Statements
- If/Else If Statements
- Nested If Statements
- Parameters and Multiple Parameters
- Event Handlers
- Spawn Event
- Event Concurrency



#### **Computer Science 3**

- String Concatenation
- Arithmetic
- Coordinate Property
- Boolean Equality and Inequality
- Return Statement
- Boolean Or/And
- Coordinate Math and Comparison
- Proportion Math
- Break and Continue Statements
- Event Data

## Computer Science 4-6 Learning Outcomes



#### **Computer Science 4**

- Object Literals
- For Loops
- Function Definitions
- Drawing
- Modulo
- Boolean Logics
- While Conditionals
- Arrays and Indexes
- Nested While Loop
- Optimization

#### **Computer Science 5**

- Modulo in Arrays
- Predefined Functions
- Search
- For Loops with Non-1 Step
- Array Push
- Nested Fors as Grid
- Nested Arrays as Grid
- 2D Array
- For Loop Array Access
- Geometry

#### **Computer Science 6**

- Variables
- Advanced Arrays
- Break Statements
- Object Literals
- Parameters
- Algorithms
- Queues and FIFO structure
- Vectors
- Math Library Operations
- Recursion



## A Unique Mix of Learning and Competing



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## Competition - General





#### **Divisions**

- Primary Division
- Secondary Division



### **Regions**

- Hong Kong
   (Kowloon East, Kowloon West, New Territories East, New Territories West, Hong Kong Island & Outlying Islands)
- Macau
- Taiwan

## Competition - General





#### **Period**

- Screening Round: 14 Days
- Grand Final: **1 Day**



#### <u>Mode</u>

- Screening Round: Online
- Grand Final: Offline

<sup>\*</sup>Finalist from Taiwan will join remotely

## **Competition - Timeline**



### **Secondary Division**







#### **Difficulty Level: Computer Science 1-2**



#### Rank automatically once code is submitted

		Red Leaderboard				
		Score	Name	When		0
ě	1	9,660	Shininglice	4 months ago	Fight!	
4	2	7,745	rrrgx	4 months ago	Fight!	
re.	3	6,711	HTYCCCS023	4 months ago	Fight!	
ė	4	6,518	Daniel Walters	4 months ago	Fight!	
<b>(</b>	5	6,139	wong9d35	4 months ago	Fight!	
4	6	6,092	Daniel Sin	4 months ago	Fight!	
4	7	6,024	cqmasuyi	5 months ago	Fight!	
4	8	5,956	cqyanhaoming	5 months ago	Fight!	
4	9	5,901	Rush_iam	5 months ago	Fight!	
4	10	5,771	steven bs	4 months ago	Fight!	
<b>P</b>	11	5,749	cqshensibo	5 months ago	Fight!	
4	12	5,727	silversawfish	4 months ago	Fight!	
4	13	5,700	cqhongbingcheng	5 months ago	Fight!	
P.	14	5,683	cqwuzetao	4 months ago	Fight!	

## Competition - Quota



**Top 150: Finalists** 

**1** Screening Round



**2** Grand Final





## Competition - Grand Final

#### **Independent Coding**



Top 4 Finalists



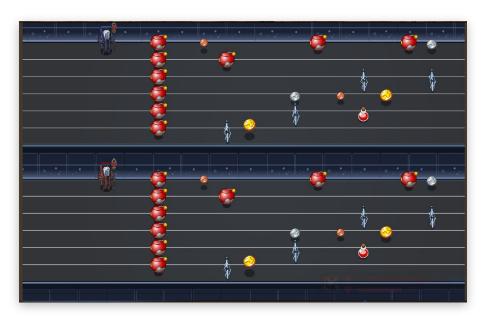
Knockout





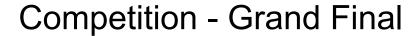
## Competition - Grand Final

#### **Difficulty Level: Computer Science 3-4**

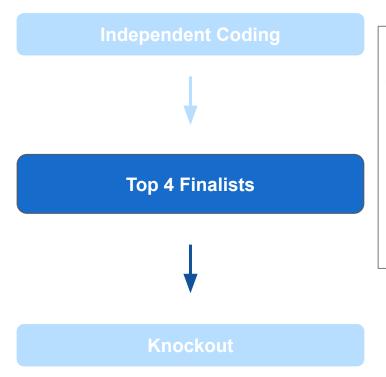


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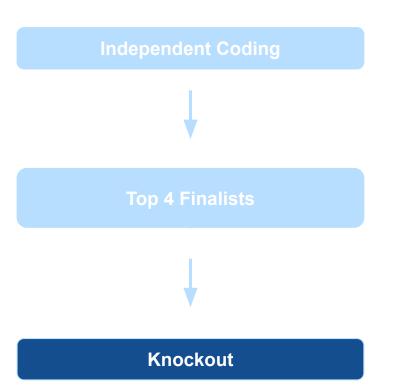
### **Congratulations!**

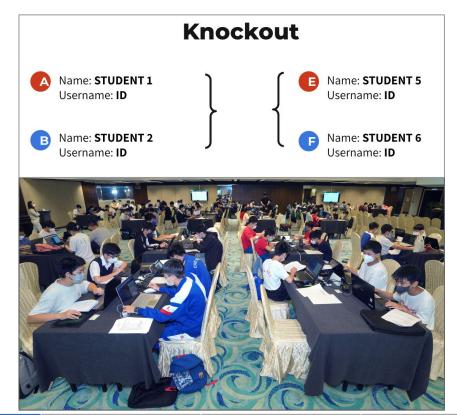
The top 4 finalists from Secondary division are (in order of ranking):

Secondary Division				
1. Region	ICE No.	NAME	xx%	
2. Region	ICE No.	NAME	xx%	
3. Region	ICE No.	NAME	xx%	
4. Region	ICE No.	NAME	xx%	

## Competition - Grand Final









## **Sharing Session & Panel Discussion**

- For Teachers and Parents









#### **Release of results & Award presentation**



### ICE Alumni



All nominated students will be promoted to be ICE Alumni

#### **Upcoming Events**

- A complimentary tour & workshop at **Age at Home**
- Theme: Gerontechnology
- First-come-first-served basis
- Details will be announced soon
- Related link: <a href="https://ageathome.hk/zh/">https://ageathome.hk/zh/</a>



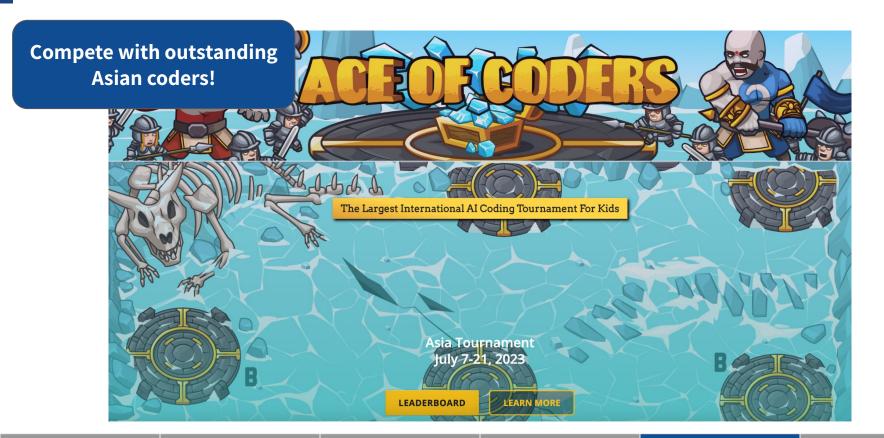




**ICE Alumni** 



## Competition - Asian Game: Ace of Coders





## Competition - Global Final: Code Quest



### Code Quest Global Week

< ICE FOUNDATION >

Stanford University

- Date: Jul 22 - 27, 2024 (7 Days)

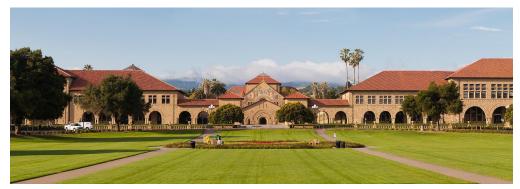
- Cost: HK\$82,000 (TBC; excluding Flight Ticket, Visa Application Fee)













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### Leaderboard Mechanism



<sup>\*</sup>Links will be announced prior to the competition

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## **Prizes**









**Trophy** 



CodeCombat Full License



Sponsored Items



Direct entry to Global Competitions



## Awards - Screening Round

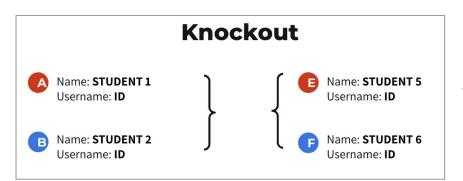
### **Students**

Award	Prizes
Top 150	Outstanding Coder ( <i>Printed</i> Certificate)
Others	Certificate of Participation ( <b>Digital</b> Certificate)
HKACE Girls' STEAM Outstanding Award (Top 3)	Medal

### Awards - Grand Final



Award	Prizes			
HK-MO-TW Overall				
Champion (1)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			
1st Runner-up (1)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			
2nd Runner-up (2)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			



**HK-MO-TW Overall Awards** will be based on the **knockout results**.

### Awards - Grand Final



## **Congratulations!**

The top 4 finalists from Secondary division are (in order of ranking):

Secondary Division				
1. Region	ICE No.	NAME	xx%	
2. Region	ICE No.	NAME	xx%	
3. Region	ICE No.	NAME	xx%	
4. Region	ICE No.	NAME	xx%	

Awards for Hong Kong/Macau/Taiwan are based on the Leaderboard ranking.

## Awards - Grand Final



Award	Prizes			
Hong Kong				
Champion (1)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			
1st Runner-up (1)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			
2nd Runner-up (1)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			
HKACE Girls' STEAM Outstanding Award (Top 3)	Medal + Printed Certificate			

## Awards - Grand Final



Award	Prizes			
Macau / Taiwan				
Champion (1)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			
1st Runner-up (1)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			
2nd Runner-up (1)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			
Kowloon East/ Kowloon West/ New Territories East/ New Territories West/Hong Kong Island & Outlying Islands				
Champion (1)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			
1st Runner-up (1)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			
2nd Runner-up (1)	Trophy + Printed Certificate + CS1-6 license (duration of 3 months) + *Eligibility to participate in CodeQuest			





## **Teachers**

Award	Prizes
The Most Participating Teachers Appreciation Awards (5)	Trophy + NMN ONE*









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## Why should the students join the competition?



#### Learn more about the fundamentals and advanced concepts of coding

Every step of the competition is built for learning. From our briefing seminar, student workshop, license accesses through to exchange with professors. We hope to educate and inspire students.



#### **High Flexibility**

Students can join the screening round anytime within the competition period.



## Opportunity to represent Hong Kong/Macau/Taiwan in international competitions

Coding opens doors. This competition is no exception, through demonstrating competency and ability, students will open up new opportunities to compete on a global scale.



## Students' Sharing

## ICE Challenge 2023 CodeCombat Grand Final (Secondary Division)

Champion: Yung Sze Wai - Sing Yin Secondary School



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## **Overview**



# **Application Method Secondary Division**

## **Application**



#### Application form for **Teachers & Supporting Org.**



## 老師/支持機構 登記表 | ICE Challenge 國際編程精英挑戰賽2023-24 CodeCombat 港澳台挑戰賽 (中學組

這次比賽**主要分為兩個組別,分別為中學組及小學組競賽,而香港的學生亦會再按學校所屬區份競逐獎項**(九龍東、九龍西、新界東、新界西和香港島及離島),希望令三地學生能夠有更多機會深入交流編程心得。同時我們亦會與各慈善團體合作,一方面鼓勵同學們關注時事和從事義工服務,另一方面推動更多有需要的學生參與活動和提升編程技巧。同時,比賽亦首次增設最踴躍參與教師感謝獎,頒予提名最多學生的首五位中學老師。

#### CodeCombat 港澳台挑戰賽(中學組)

報名: 2023年12月19日 (二) 至 2024年1月31日 (三)

教師簡介會: 2023年12月19日 (二)

初賽: 2024年3月11日 (一) 至 3月24日 (六)

決賽:2024年4月

#### Application form for Each Student



### 學生報名表 ICE Challenge 國際編程精英 挑戰賽2023-24 CodeCombat 港澳台挑戰 賽中學組

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決賽:2024年4月

## **Application Method**

#### **Application period:**

Application opens NOW!

Application closes on 31 Jan 2024 (Wed) 6:00pm (GMT+8)

< ICE FOUNDATION >

**Students' Application Form** 

https://forms.gle/7XfLLcbbUsPXpKJZ6

#### Where can I find the application form?

- 1. Scan the QR code on the right
- 2. Competition Website: <a href="https://icefoundation.io/ice-challenge-2023-24/">https://icefoundation.io/ice-challenge-2023-24/</a>
- 3. Upcoming eDM from Caprikon Education (Whitelist: events@caprikon.education)
- 4. ICE Foundation's / Caprikon Education's Facebook / IG / LinkedIn Page



Teachers' / Supporting Org. Application Form

https://forms.gle/fs2oHWYtZJkfxw2a7



## 老師/支持機構 登記表 | ICE Challenge 國際編程精英挑戰賽2023-24 CodeCombat港澳台挑戰賽 中學組)

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Application: Dec 19, 2023 (Tue) to Jan 31, 2024 (Wed)

Teachers' Briefing: 19 Dec, 2023 (Tue)

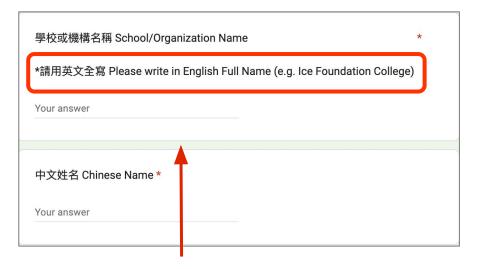
Screening Round: Mar 11, 2024 (Mon) to Mar 24 (Sat)

Grand Final: Apr 2024

#### 重要提醒 Important Reminders:

- 老師可提名最多20位學生參與比賽。建議提名對編程有興趣的學生參與。
  Teachers may nominate up to 20 students to participate in the competition. It is recommended that students have an interest in coding.
- 主辦單位將根據報名表格所提供的聯絡資料作日後發放比賽資訊用途。 Email is the primary communication channel for the competition.
- 遞交報名表後,任何資料更改必須直接聯絡比賽大會秘書處 啟瀚科技教育。
   Any changes to the submitted registration form must be directly communicated to the competition secretariat Caprikon Education.



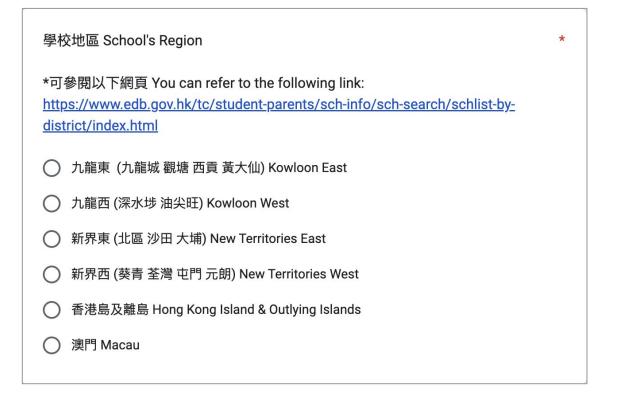




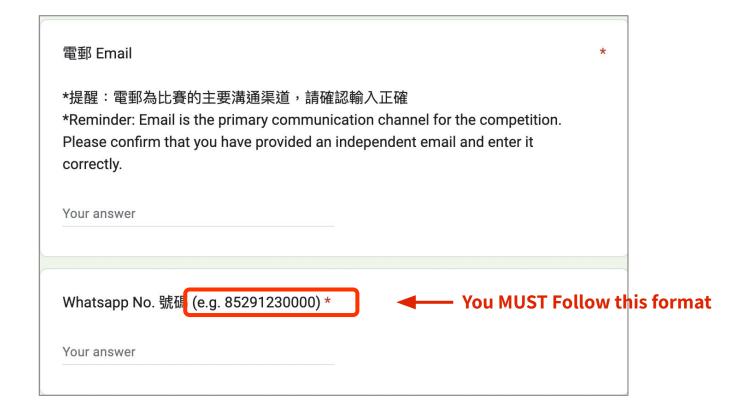
\*You MUST Follow this format

\*You MUST follow this format and write in English Full Name











請問貴校有否參加香港電腦教育學會(HKACE)舉辦的Girls STEAM計劃?** Have you ever joined the Girls STEAM Programme, organized by HKACE?			
○ Yes			
○ No			
提交此表格代表本人同意比賽大會秘書處啟瀚科技教育的私隱條款。 I confirm that understand and agree to the privacy policy of the competition secretariat Caprikon Education.	*		
https://caprikon.education/privacy-policy/			
○ 明白 Understand			
Submit	Clear form		

## **Application - Students**

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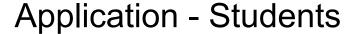
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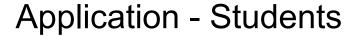
- 老師可提名最多20位學生參與比賽。建議提名對編程有興趣的學生參與。
  Teachers may nominate up to 20 students to participate in the competition. It is recommended that students have an interest in coding.
- 主辦單位將根據報名表格所提供的聯絡資料作日後發放比賽資訊用途。 Email is the primary communication channel for the competition.
- 遞交報名表後,任何資料更改必須直接聯絡比賽大會秘書處 啟瀚科技教育。
   Any changes to the submitted registration form must be directly communicated to the competition secretariat Caprikon Education.





學校名稱 School Name	*
請用英文全寫 Please write in English Full Name (e.g. Ice Foundation Co	ollege
Your answer	
支持機構名稱 (如有) Organization Name (If any)	
Your answer	

\*You MUST follow this format and write in English Full Name

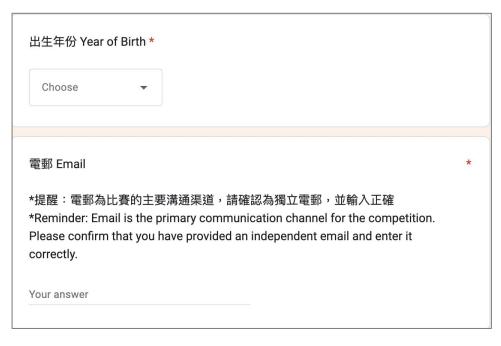




中文姓名 Chinese Name	*	
*提醒:請確認輸入正確 *Reminder: Please confirm that your input is corre	ect.	
Your answer		
英文姓名 English Name (e.g. Chan Tai Man, Peter)	ST Follow t	his format
*提醒:登記姓名將用作製作證書,請確認輸入正確		
*Reminder: The name will be used for certificate production. Please confi	rm that	
your input is correct.		
Your answer		

## Application - Students





Whatsapp No. 號碼 (e.g. 85291230000) <sup>?</sup>
Your answer



You MUST Follow this format

\*Students'/parents' email

(Please make sure to check this email)

\*It should not be the same as teachers' email

## Application - Students



提交此表格代表本人同意比賽大會秘書處啟瀚科技教育的私隱條款。 I confirm that understand and agree to the privacy policy of the competition secretariat Caprikon Education.

https://caprikon.education/privacy-policy/

○ 明白 Understand

Submit

Clear form





#### 1. Nomination by school:

Each school can nominate up to **20** students for **each** division

#### 2. Nomination by supporting organisation:

Each partnering organisation can nominate up to <u>20</u> students for <u>each</u> division

3. Students **MUST NOT** change their username (ICE no.) during the competition



## **Overview**



- 1. Past Competition
- 2. Competition Platform CodeCombat
- 3. Competition
- 4. Leaderboard Mechanism
- 5. Prizes
- 6. Why should the students join the competition?
- 7. Application Method
- 8. FAQ



## **FAQ Session**





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**Foundation - ICE Foundation** 



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@International Coding Education Foundation

Website: <a href="https://icefoundation.io/ice-challenge-2023-24/">https://icefoundation.io/ice-challenge-2023-24/</a>

## **Competition Secretariat**



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