

# EWSN'24 Sustainability Competition

## Community Meetup

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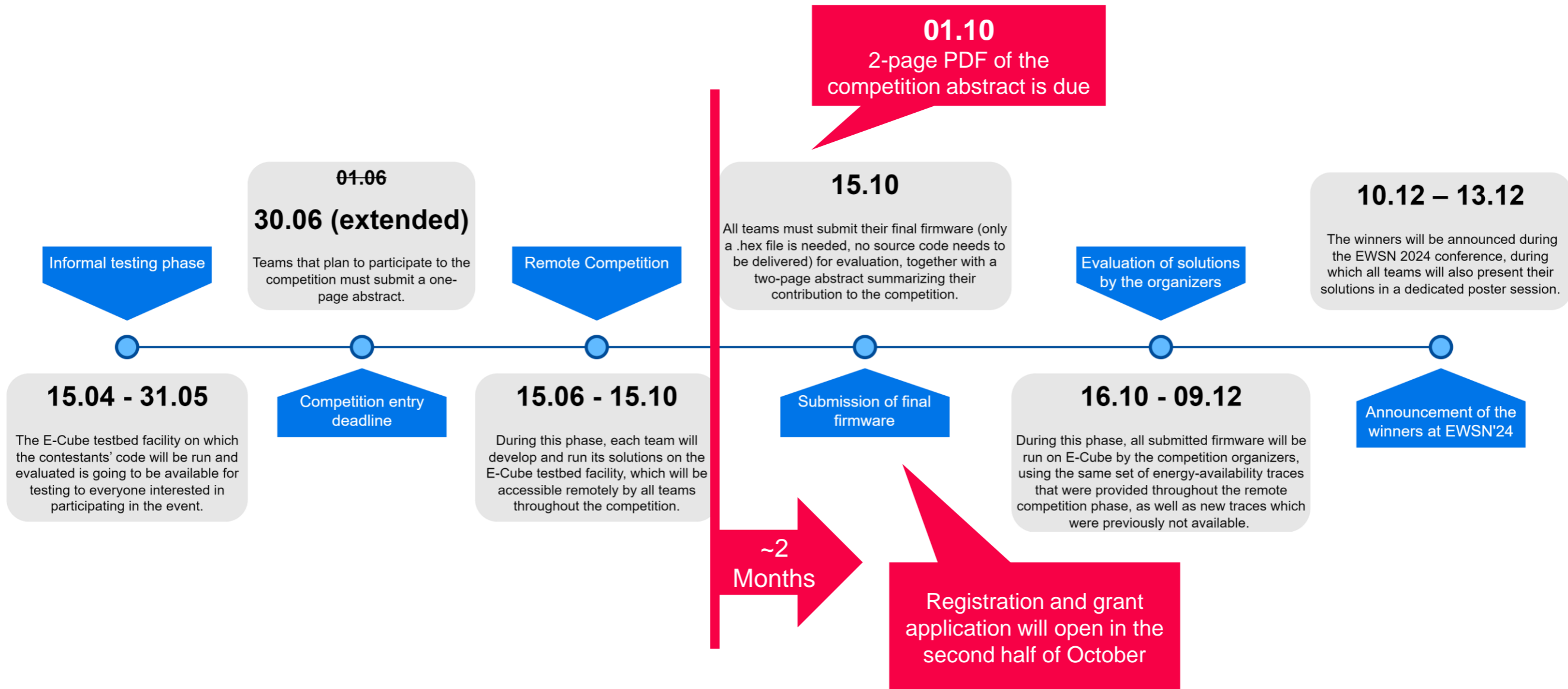
06.08.2024

# Organisational Updates

- Competition abstract:
  - (new!) due on October 1<sup>st</sup> (23:59, AoE)
  - Last-minute updates to the PDF can still be made in the camera-ready
  - Competition final software / camera-ready PDF: October 15<sup>th</sup>
  - Format ("Competition: [Title]", 2 pages double-column, 10pt font)  
(same as poster & demo abstracts: <https://ewsn24.tii.ae/call-for-posters-demos.html>)
  
- Registration: Grant application:
  - Grant application deadline around October 18<sup>th</sup>  
(inofficial!)
  - Registration deadline around October 29<sup>th</sup>  
(inofficial!)

Digital presentation: Posters will be displayed on digital A1 displays, supporting multimedia elements (videos are allowed, but there is no sound). There will be no poster stands or walls. The display of all posters and demos is restricted to a dedicated poster session.

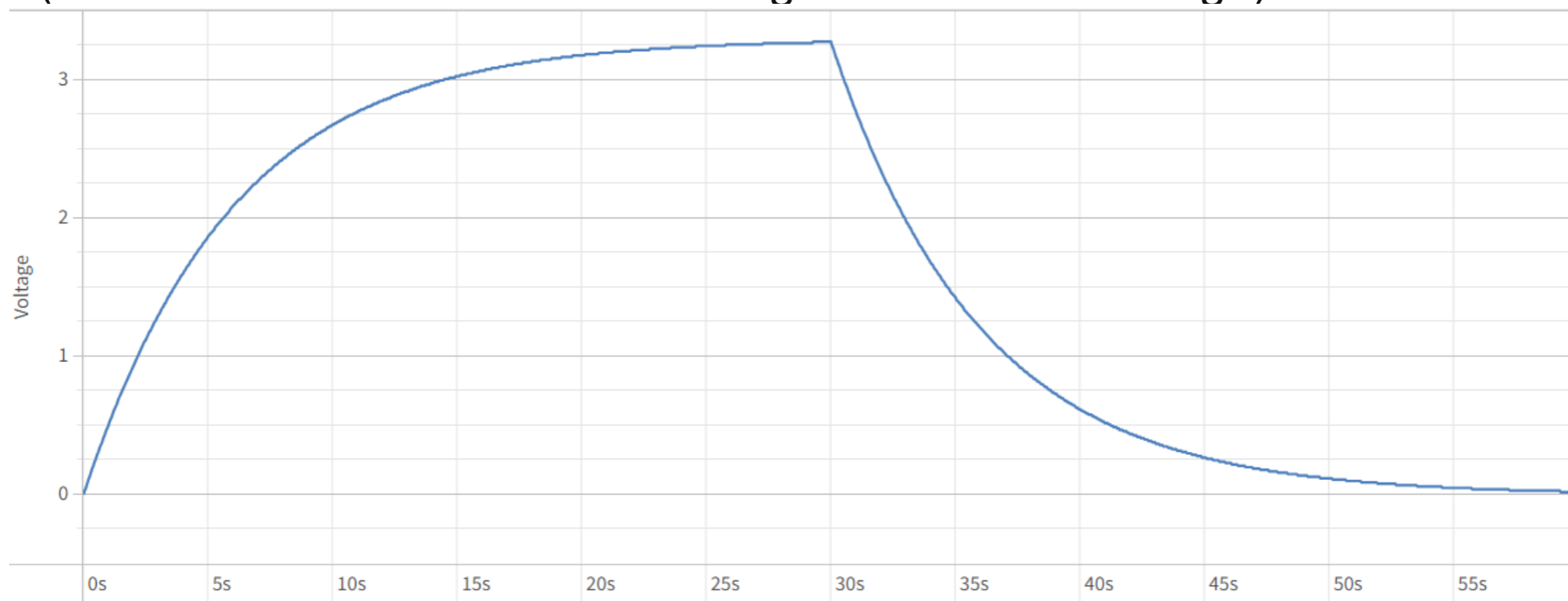
# Timeline and Important Dates



<https://ewsn24.tii.ae/grants.html>

# New Traces

- Based on a simplified charge and discharge cycle of a capacitor
  - Currently 60s, 5s, and 0.5s period are available (all with 50% of the total time charge and 50% discharge)



# Updated Leaderboard

Count: 1 | Duration: Any | Trace: Any | Logs: Off

## Leaderboard

#	Team	Trace	Correct	Incorrect	Total	Duration	Points (/s)
1312	team09	Constant	962	0	2048	60	<b>89368 (1489)</b>
1272	team04	Constant	635	0	2048	60	<b>19736 (328)</b>
335	team10	Constant	1121	0	2048	600	<b>182040 (303)</b>
844	team05	Constant	609	0	2048	60	<b>17624 (293)</b>
1135	team17	Constant	957	0	2048	300	<b>86808 (289)</b>
190	team03	Constant	580	0	2048	60	<b>15768 (262)</b>
450	team02	Constant	580	0	2048	60	<b>15768 (262)</b>
871	team13	Constant	580	0	2048	60	<b>15768 (262)</b>
582	team15	Constant	546	0	2048	60	<b>13592 (226)</b>

Count "1" is now labelled "Best" to better indicate the intent

Points for "any" duration are now normalized by the duration of the experiment

# Experiment Results

## Performance Metrics

Recap

For each solved challenge, points  $p$  are awarded based on the difficulty:

$$p = \sum_i p_i \text{ with } p_i = 2^{\text{bits}-1}$$

So a challenge of difficulty 1 bit = 1 point, 2 bit = 2 points, 3 bit = 4 points...

**Disclaimer:** Currently incorrect challenges do not provide a penalty, this will change during later stages!

## Performance Metrics

Metric	Result
Points	2194200
Correct	1681/2048
Incorrect	0

This is a **placeholder** using the above equation without any penalties (e.g., wrong solutions)



Number of correct solutions / total challenges



Number of incorrect solutions

# Updated Point Score

- The following changes to the current points metric will be made:
  - All challenges must be solved in order  
(any challenges before the current one will be marked as incorrectly solved)
  - Incorrectly solved challenges or solutions without associated challenge will count against the score ( $-2^{bits-1}$ )
  - For the final evaluation, experiments with excessive errors will be (manually) disqualified
- The number of errors will serve as the primary tie breaker  
(energy is only used as tie breaker if there is a significant difference)

# Contacts

- E-Cube is being improved and upgraded on-the-go!
- We look forward to interact with you!
- Questions? Feedback?
  - <https://discord.gg/baBP2GbUvb>  
Feel free to hang out and exchange ideas!
  - [markus.schuss@tugraz.at](mailto:markus.schuss@tugraz.at)
- Other general inquiries?
  - [ecube@iti.tugraz.at](mailto:ecube@iti.tugraz.at)

