

# ENERGY BREAKTHROUGH



2023 Program Update

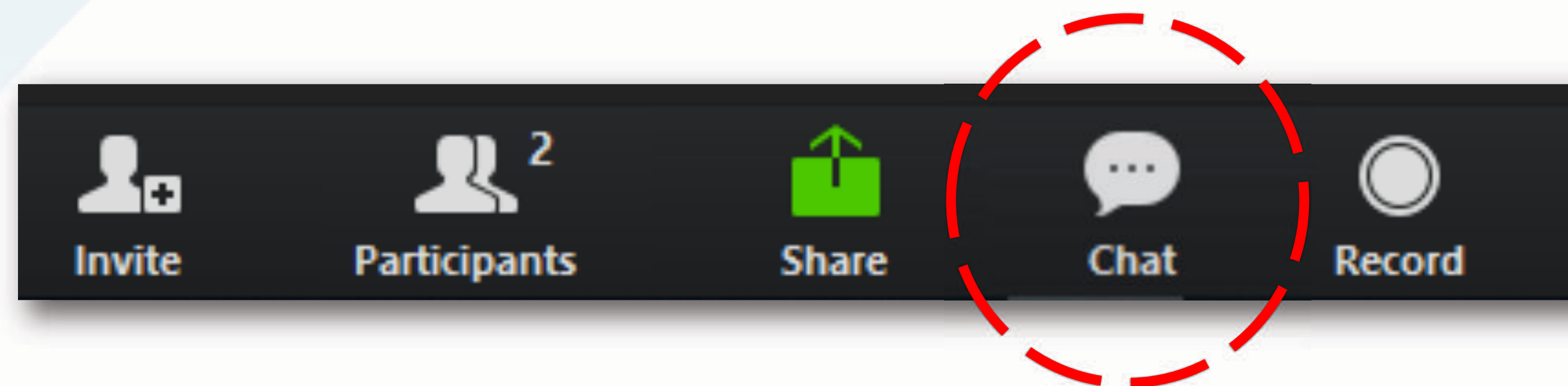
8 June 2023

LET'S START >

# GROUND RULES

## Participating today:

- Mobile phones to silent
- Recording session
- Please “Mute” your microphone on Zoom unless engaged to speak
- Any questions please send through via “Chat”



# AGENDA

1. Welcome
2. Brief history of the Energy Breakthrough
3. State of Play & Factors
4. Key Changes
5. New Site Map
6. Next Steps
7. Wrap Up

# ENERGY BREAKTHROUGH

**TODAY'S CHALLENGE:**

Explain the new **2023 Energy Breakthrough Program** to people who are both **NEW** to the program and **EXPERIENCED** campaigners.



**POWERED BY IMAGINATION**

# PARTNERS



# SPONSORS AND SUPPORTERS



# ENERGY BREAKTHROUGH



**BRIEF HISTORY**

# Energy Breakthrough: Origin Story

In 1990, schools from the Country Education Project (CEP) Area, the Mallee Track, competed in the South Australian Pedal Prix.

*(Now the Australian HPV Super Series)*

The CEP team at the time thought: “We *could* keep supporting these schools to go across the border to S.A. OR We could look to start something new.”

CEP ran an Expression of Interest process for a ‘host location’ in a **regional setting** for an event that would have a strong **education focus**. **Maryborough was perfect and the successful bidder!**

In 1991, the first Energy Breakthrough was held in Maryborough with RACV technical support. **Eight pushcart teams and 18 Human Powered Vehicles and Petrol-Pedal Hybrids** covering different age ranges competed.

**ENERGY**   
**BREAKTHROUGH**

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**THE EARLY 90s**





TODAY



# ENERGY BREAKTHROUGH



THE AIMS

# Aims



## **The Energy Breakthrough Program aims to:**

- Provide an excellent technology project for students from Prep to VCE level.
- Encourage young people to explore solutions to environmental and transport issues.
- Provide an opportunity for schools and communities to work and learn together.
- Provide an opportunity for women and girls to participate in what has traditionally been a 'male' dominated area of the curriculum (STEM).
- Be a fun program with real world challenges.
- Offer students opportunities to explore and address vehicle design, driving skills and vehicle and passenger safety issues.

# ENERGY BREAKTHROUGH

**PROGRAM LEADER**

**Nigel Preston**

**SITE DIRECTOR**

**Alisha Chadwick**

**SITE COORDINATOR**

**Ben Robertson**

**PUSHCARTS**

**Rob Higgins**

**HPV / EEV**

**Mick McTigue**

**HPV / EEV**

**Tim White**

**DISPLAY & PRESENTATION**

**Laurie Preston**

**TRYATHLON &  
JUNKYARD CHALLENGE**

**Mary Preston**

**ONLINE ENTRY SYSTEM**

**Lachlan Hickey**

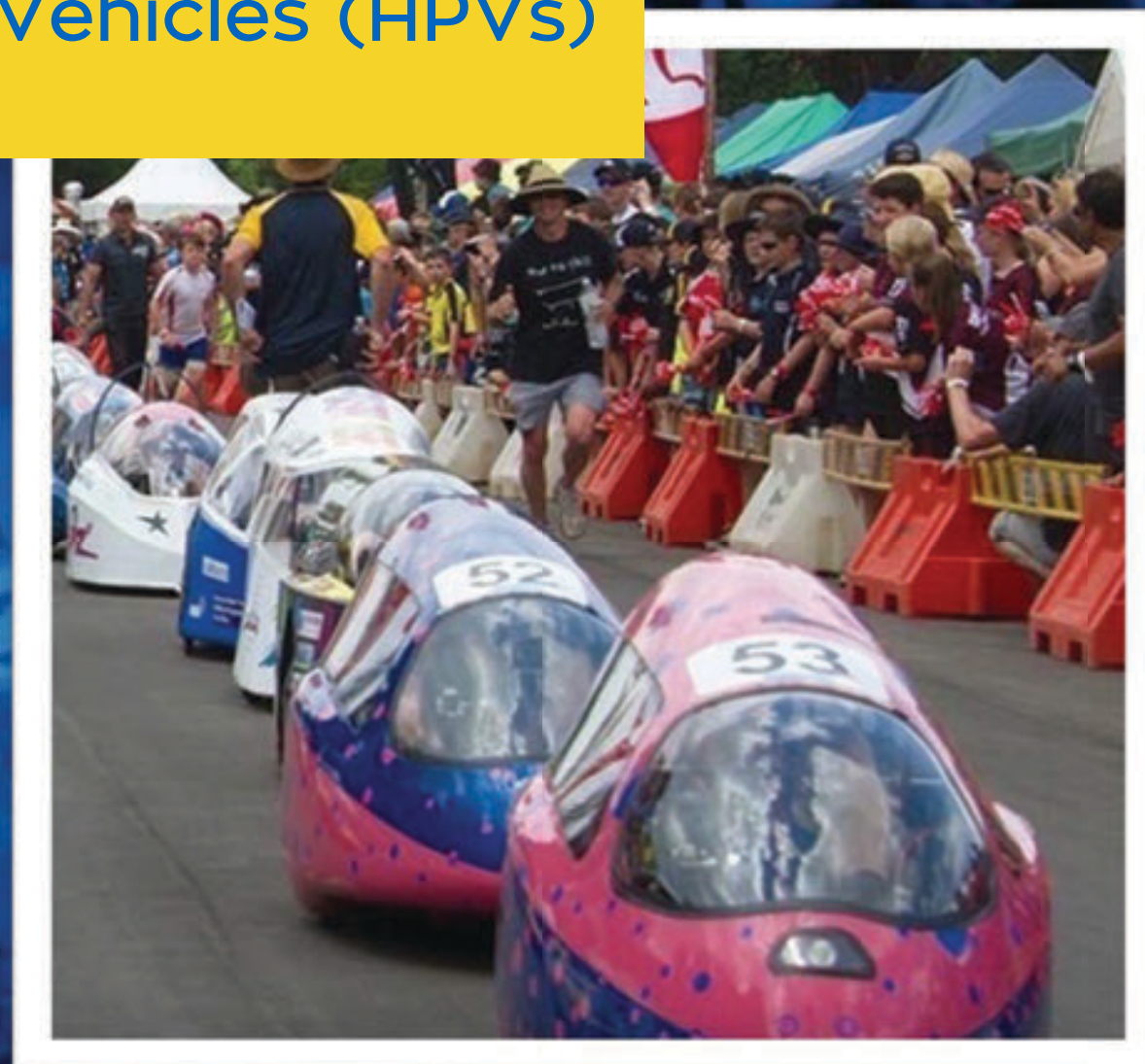
Junkyard Challenge



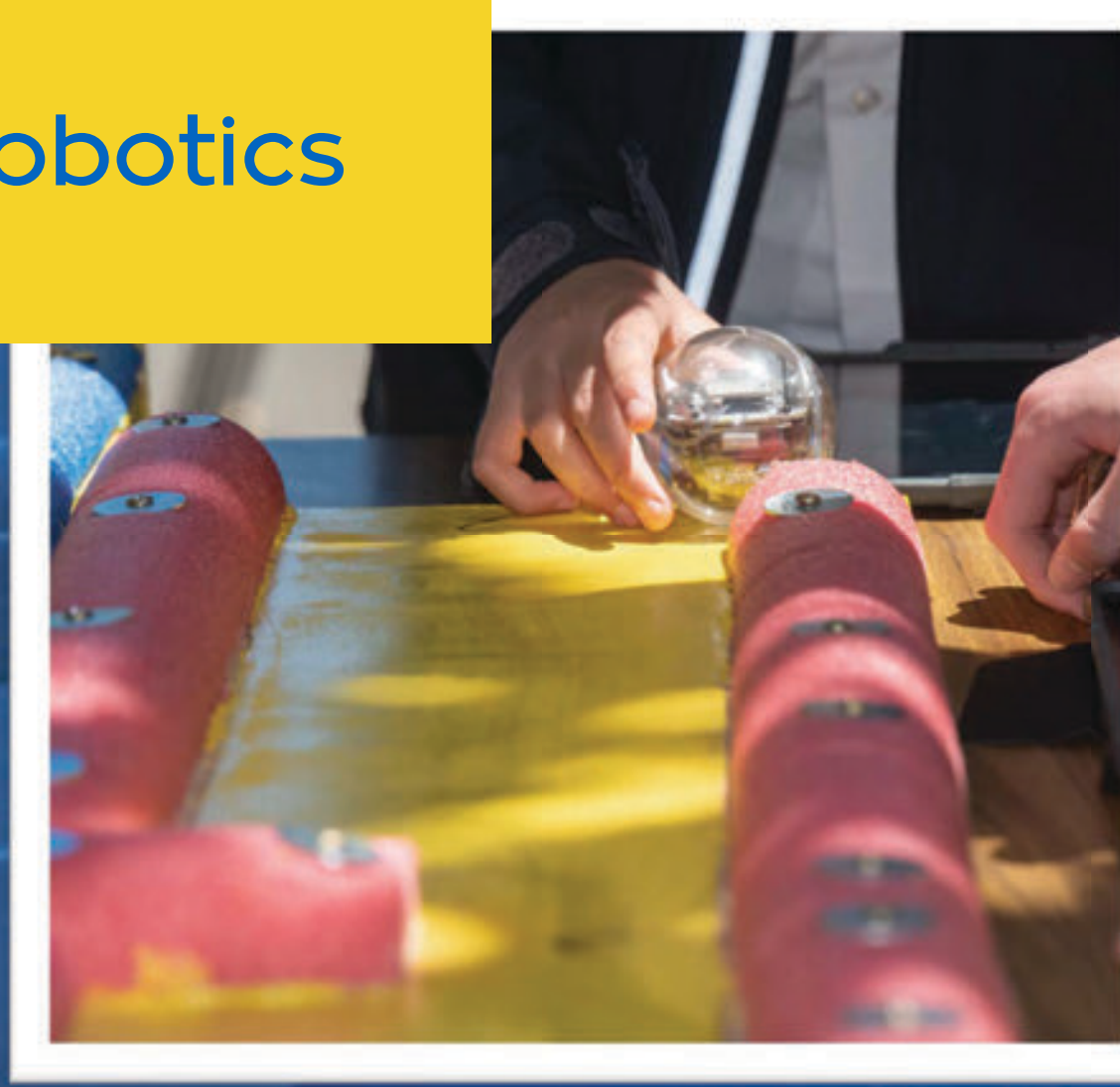
Pushcarts



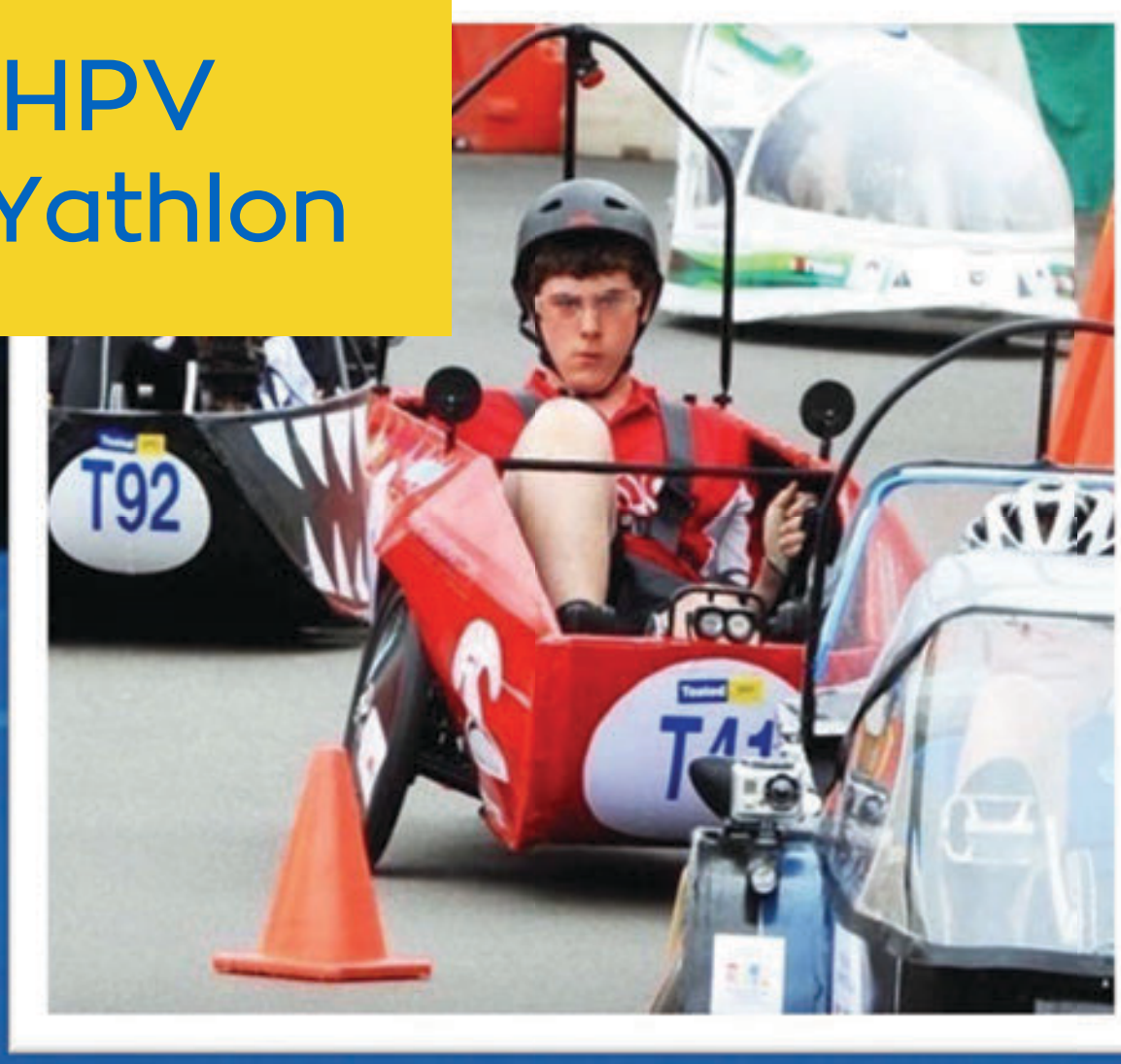
Human Powered Vehicles (HPVs)



Robotics



HPV TRYathlon



Energy Efficient Vehicles (EEVs)

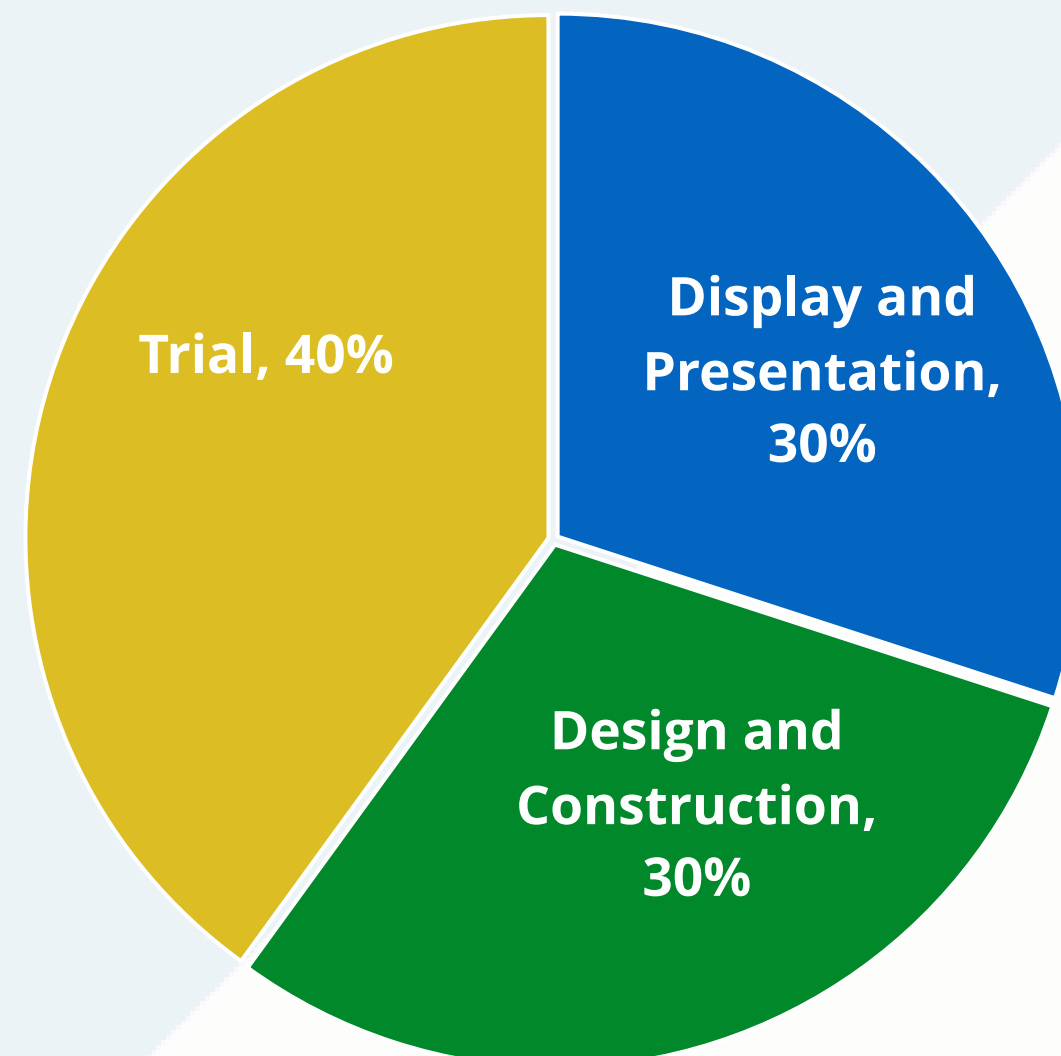


# ASSESSMENTS

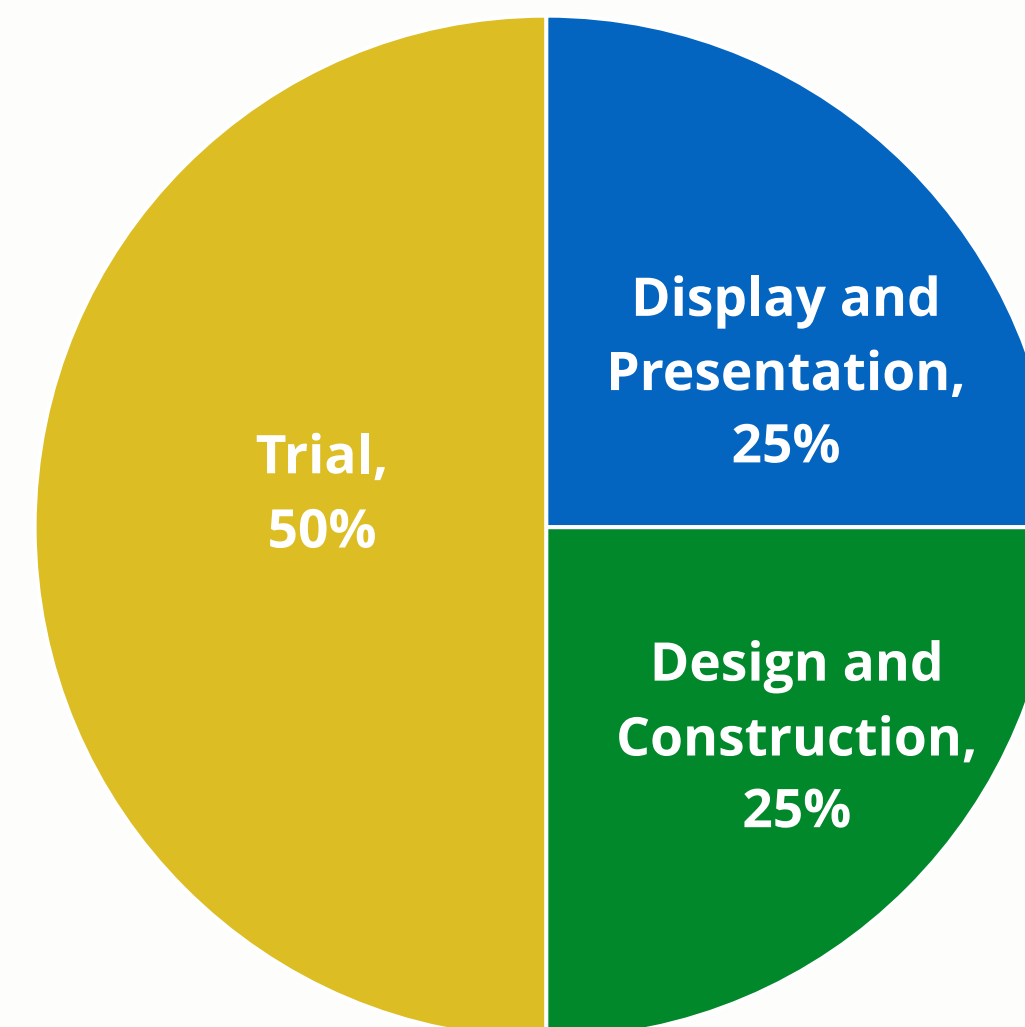
Energy Breakthrough is unique in that teams must complete three assessments: **1/ Display and Presentation, 2/ Design and Construction** and **3/ Trials**.

Note the Robotics and Junkyard Challenge only complete a Trial component.

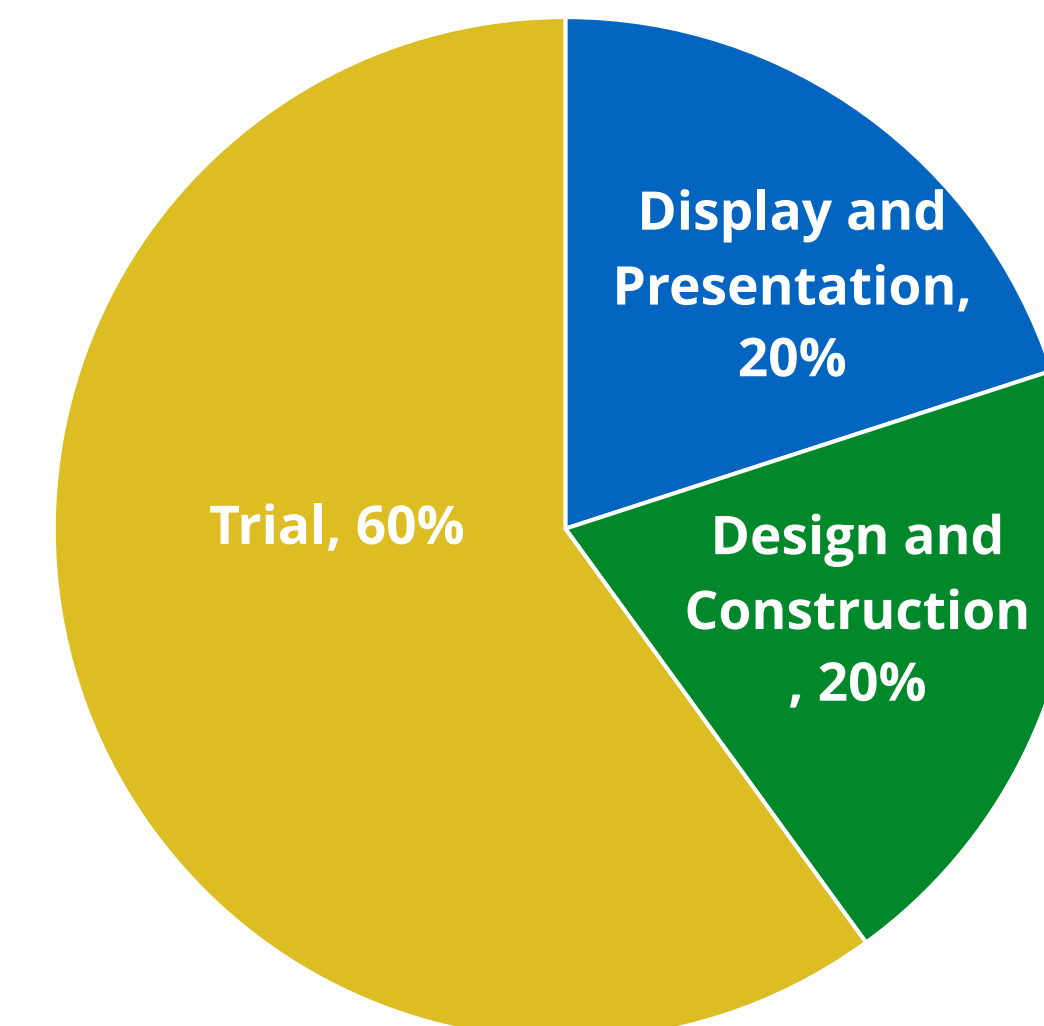
## PUSHCARTS



## HPV / EEV



## TRYATHLON





# Energy Breakthrough

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Energy breakthrough 2019 - Friday Highlights

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Energy Breakthrough 2019 - Friday Daily Wrap

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Energy Breakthrough 2018 - Saturday Daily Wrap

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Live On-Board Footage at the 2018 Energy Breakthrough

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Energy Breakthrough 2018 - Thursday Daily Wrap

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Energy Breakthrough 2018 - Wednesday/Thursday

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Marshal Training - Radio Operations (3 of 4)

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Marshal Training: Responding to an Incident (...

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Marshal Training: Corner Setup (2 of 4)

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Marshal Training: Introduction (1 of 4)

2.7K views • 3 years ago



Energy Breakthrough 2018 - It's here

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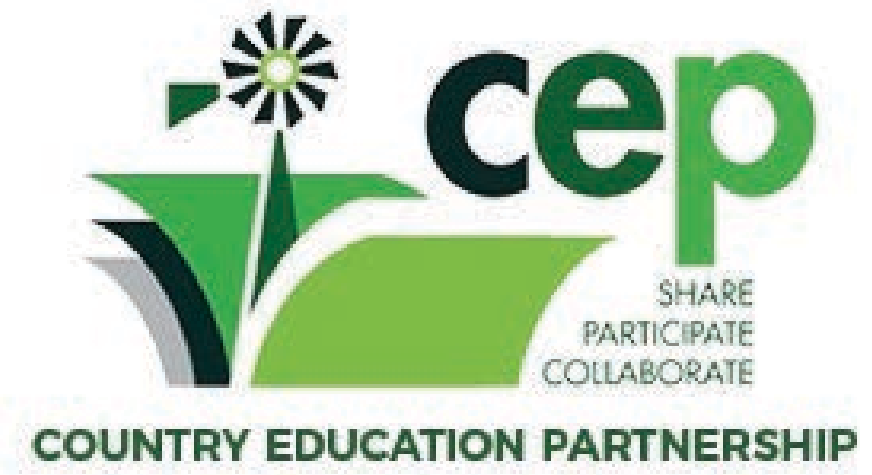
Get Ready, Presented by La Trobe University

325 views • Streamed 3 years ago

<https://www.youtube.com/energybreakthrough>



# ENERGY BREAKTHROUGH



**STATE OF PLAY**

# FACTORS: ENTRIES 2019 to 2022

**FACTOR 1: The COVID-19 pandemic severely disrupted schools' programs.**

Younger students weren't able to be inspired by older students, experienced and passionate teachers changed schools or left the profession, enthusiastic and valuable parents lost connection with the EB program or their students graduated, and other sports and programs took the Energy Breakthrough's place.



**340**  
Teams in 2019



**292 (-48 or -14%)**  
Teams this year



**150**  
Schools in 2019



**100 (-50 or -30%)**  
Schools this year

# FACTORS: COSTS AND REVENUE

## FACTOR 2:

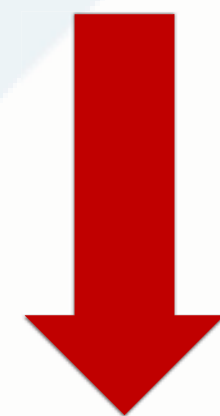
Event delivery costs have significantly **INCREASED** since 2019.

Overall sponsorship levels have **DECREASED** since 2017.

Behind the scenes, we continue to work on both areas with urgency.



**EQUIPMENT HIRE COSTS**  
**MEDICAL AND FIRST AID COSTS**



**OVERALL SPONSORSHIP LEVELS**

# FACTORS: TIME IN LIEU & BUDGETS

## FACTORS 3: Time In Lieu Policy and changing school budgets

Victorian State Government schools are now generally operating under a **Time In Lieu** policy that makes all excursions and extra-curricular activities such as Energy Breakthrough more expensive. There are many pressures on a **school budget** and the Energy Breakthrough program is not immune to those forces.



## TIME IN LIEU POLICY



## CHANGE IN SCHOOL BUDGETS

# ENERGY BREAKTHROUGH



2023 PROGRAM





# JUNKYARD CHALLENGE





**PUSHCARTS**



# KEY 2023 CHANGES

## ROBOTICS

- **No changes to program.**
- FRIDAY AM program.
- Limit of **four teams** per school.
- NEW Info sessions and school visits available.

## JUNKYARD CHALLENGE

- Moves to THURSDAY *from* SATURDAY.
- Limit of **four teams** per school.
- Info sessions available.

## PUSHCARTS

- **No changes to program.**
- WEDNESDAY to FRIDAY program.
- Increases cap from **three teams** per school to **four teams** per school.
- New resource kit.



**HPV PRIMARY**

# KEY 2023 CHANGES

## HPV PRIMARY

- Moves to **Track One**.
- Program moves forward to **WEDNESDAY to FRIDAY** *from* THURSDAY to SATURDAY.
- Increases capacity to 135 teams total.
- Increases cap from **three teams** per school to **four teams** per school.
- Will camp on Princes Park and Hockey Field.

## TIMETABLE

- WEDNESDAY: Judging and scrutineering
- WEDNESDAY NIGHT: Practice session with the TRYathlon Primary teams.
- THURSDAY: 9am – 5pm Trial: First 8 hours with the TRYathlon Primary teams.
- FRIDAY AM: 6am – 12pm Trial: Final 6 hours *without* TRYathlon teams.



**HPV SECONDARY**



**ENERGY EFFICIENT VEHICLES**

# KEY 2023 CHANGES

## HPV SECONDARY & ENERGY EFFICIENT VEHICLES

- No major changes to program.
- All activities still on Track 1.
- Schools camping on Jubilee Oval will need to bump in around the HPV Primary Trial event.
- 24 Hour Trial will now begin at 12noon on Saturday until 12noon on Sunday.
- First 8 Hours of Trial will be shared with TRYathlon Secondary teams.
- Increased cap from **three teams** per school to **four teams** per school.

## THURSDAY NIGHT

- Show'N'Shine
- Guest Speaker
- Movie Night



**TRYATHLON**

# KEY 2023 CHANGES

## TRYATHLON

### TIMETABLES

- **Primary TRYathlon teams** will follow the HPV Primary Program:
  - WEDNESDAY: Judging
  - WEDNESDAY: Practice session with the HPV Primary teams.
  - THURSDAY: Trial: First 8 hours with the HPV Primary teams.
  - FRIDAY PM: TT and Obstacle.
- **Secondary TRYathlon teams** will follow the HPV Secondary Program:
  - FRIDAY AM: Judging
  - FRIDAY PM: TT and Obstacle.
  - FRIDAY NIGHT: Practice session with the HPV Secondary teams.
  - SATURDAY: Trial: First 8 hours with the HPV Secondary teams.
- **All TRYathlon teams** will complete the Time Trial and Obstacle Rally together on Friday PM.

### LOCATIONS

- TRYathlon Time Trial on top loop of Track 1.
- TRYathlon Obstacle on front straight of Track 2.
- TRYathlon 8 Hour Trial on Track 1.



# PROGRAM - TUESDAY & WEDNESDAY



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TUESDAY					
TIME / LOCATION	2:00PM	3:00PM.	4:00PM	5:00PM.	6:00PM
ADMIN HUB	SITE CLOSED		CHECK-IN: PRIMARY		
CAMPING		SCHOOLS BUMP-IN CAMPING			

WEDNESDAY												
TIME / LOCATION	8:00AM	9:00AM	10:00AM	11:00AM.	12NOON	1:00PM	2:00PM	3:00PM	4:00PM	5:00PM	6:00PM	7:00PM
ADMIN HUB	8AM – 12 PM CHECK-IN: PRIMARY											
EB CENTRAL - AREA 1		9 AM – 5 PM HPV A & TRY A - D&P, D&C, SCRUTINEERING.										
EB CENTRAL - AREA 2		9AM - 12PM PUSHCARTS - D&C & SCRUT.										MOVIE NIGHT
TRACK #1											6:30PM - 8:30PM HPV A & TRY A - PRACTICE	
TRACK #2							2PM - 4PM PUSHCARTS - OBSTACLE					

# PROGRAM - THURSDAY



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THURSDAY													
TIME / LOCATION	8:00AM	9:00AM	10:00AM	11:00AM	12NOON	1:00PM.	2:00PM	3:00PM.	4:00PM	5:00PM.	6:00PM	7:00PM.	8:00PM
ADMIN HUB		9AM - 12PM: CHECK-IN: SECONDARY			CHECK-IN CLOSED			4PM - 6PM: CHECK-IN: SEC.					
EB CENTRAL - AREA 1						1PM - 4PM: JUNKYARD CHALLENGE							
EB CENTRAL - AREA 2												SHOW N SHINE GUEST SPEAKER MOVIE	
TRACK #1		9AM - 5PM: HPV A (Part 1/2) & TRY A (Part 1/1) - TRIAL (8 HRS)											
TRACK #2		9AM - 12PM: PUSHCARTS - ENDURANCE				1PM - 4PM: PUSHCARTS - SPRINT			5PM: PUSHCART AWARDS				

# PROGRAM - FRIDAY

FRIDAY															
TIME / LOCATION	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12 NOON	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM
ADMIN HUB	8AM - 12NOON: CHECK-IN OPEN														
EB CENTRAL - AREA 1		9AM - 5PM: HPV SECONDARY & EEVS - D&P, D&C, SCRUTINEERING													
EB CENTRAL - AREA 2			10AM - 1PM: ROBOTICS			1PM: HPV A AWARDS									
EB CENTRAL - AREA 3		9AM - 12PM: TRY SECONDARY - D&P, D&C, SCRUTINEERING.													
TRACK #1 - Full Circuit	6AM - 12PM: HPV A TRIAL - Part 2/2 (6 HRS)											7 / 7:30PM - 9 / 9:30PM: HPV SEC, TRY SEC & EEV PRACTICE			
TRACK #1 - TT Loop						1:30PM - 5PM: TRY TIME TRIAL									
TRACK #2 - Front Straight						1PM - 5PM: TRY OBSTACLE									





ENERGY BREAKTHROUGH SITE - KEY				eb.org.au	
	First Aid		Accessible Toilet		Trackside
	Assembly Area		Showers		Stage
	Camping Area		Wrist Banding Station		Marquee 1
	Food & Refreshments		Recharge Station		Marquee 2
	Drinking Water		Masseur		Marquee 3
	Toilets		Parking Area		Marquee 4
			Road Closed		Event Operations Centre
			Gate (numbered)		Exhibitors (EB Central)
			Marshal Point (numbered)		Bridge
			Start/Finish		One way traffic only
			Pushcart Changeover Point		Walking track only

Energy Breakthrough is a non-smoking event

BALLARAT/AVOCA →

Map not to scale.

# ENERGY BREAKTHROUGH



**NEXT STEPS**

# ENERGY BREAKTHROUGH

- Recording of today's presentation will be available on [www.eb.org.au](http://www.eb.org.au)
- Request a one-on-one meeting: <https://calendly.com/eb-nigelp>
- Discuss with your team (students, teachers, parents and principal)
- New entries ideally submitted by 30 June.



## Login

[Forgot Password?](#)

Don't have an account? [Register now](#)

Or

<https://my.eb.org.au/>





## Team Managers Hub

# TEAM MANAGER'S HUB

## WELCOME

You've taken on the challenge of leading a team through the Energy Breakthrough program as a Team Manager.

The Team Manager Hub has been developed to assist new and existing schools from the beginning to the end their Energy Breakthrough journey. The Energy Breakthrough team – which combines personnel from Central Goldfields Shire Council (CGSC) and the Country Education Partnership (CEP) and host of volunteers – are on hand to help you approach this challenge with confidence.

We refer to the key teacher or contact person in charge of each team's Energy Breakthrough entry as a 'Team Manager'. This Team Manager is responsible for ensuring their entry complies with all of the rules and specifications and will be the main point of contact between the organising team and the school team.

Find everything you might want, or need to know, within this page.

If you are ever unsure of a rule, specification, category or something else, [contact us](#).

<https://www.eb.org.au/team-managers-hub/>