

SMEs Cluster Development through STI and
Supplier Value Chain Integration

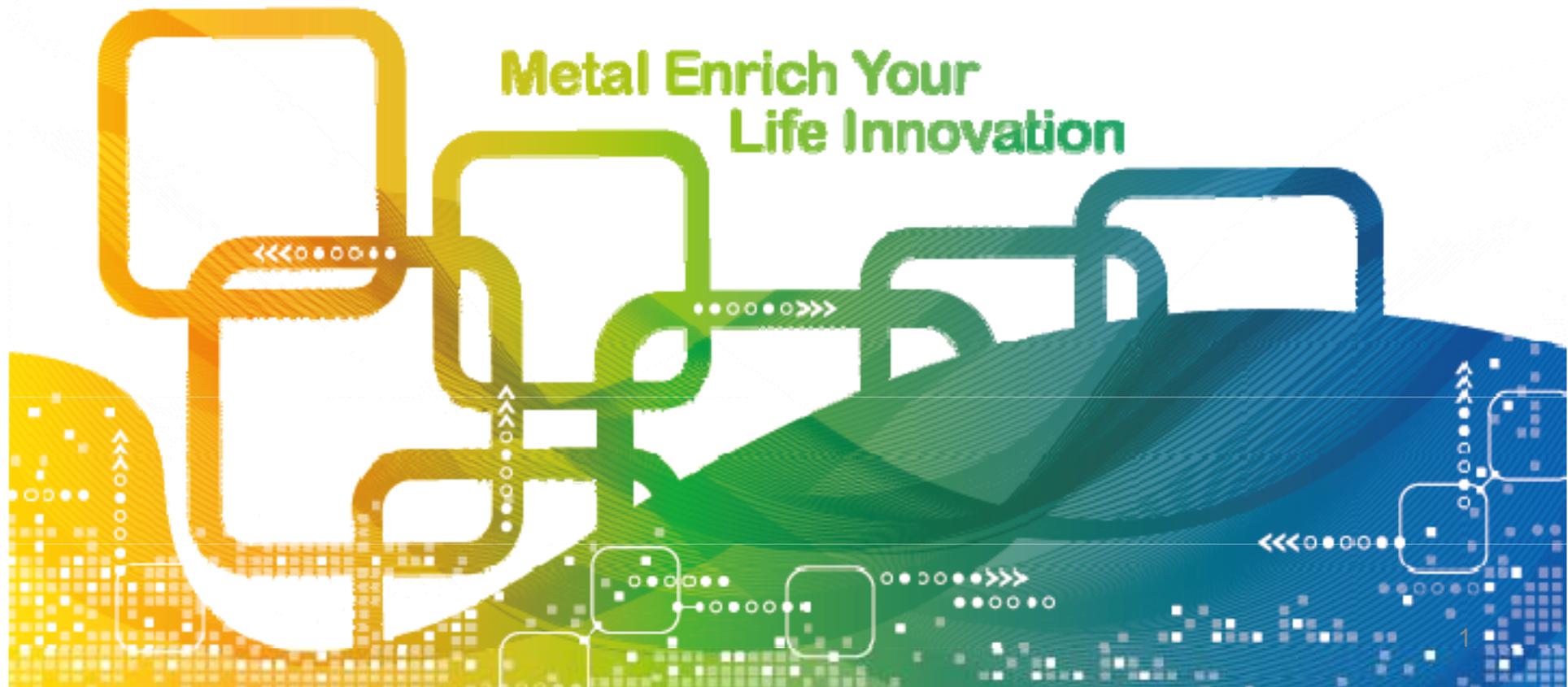


Metal Enrich Your Life Innovation

Dechnology & Green Vehicle Open Innovation Platform

MIRDC APEC Project Team

May, 2017





SMEs Cluster Development through STI and
Supplier Value Chain Integration



Outline

- **Project Introduction**
- **About 2017 APEC Design Contest**



Project Introduction

Project Topics:

SMEs Cluster Development through STI and Supplier Value Chain Integration

- This project will demonstrate how **SMEs use open-innovation platform** to cross-field integration, and combine with the external partners and resources to co-innovation.
- Sharing 2 best practice experiences:
 - (1) **The tourism factory** focus on the combination with regional metal supply chain and culture/ innovation industries.
 - (2) **Micro EV** uses open chassis platform to display ICT integration with plug & play function.

- Dechnology(Design + Technology)
Platform of metal



Contest for Metal Dechnology

Tourism
Factory

- Open Innovation Platform for plug
& play demonstration



Micro
Electric
Vehicle



Mechanism and Expected Outcomes

- **Contest** on metal dechnology and green vehicle
- **Forum** on **global benchmarking** and **KSF investigation** of the best practice
- **Workshops** from the innovation initiation, **SMEs' value chain readiness assessment**, and on-site practice to draft a **policy recommendation proposal**
- **Policy recommendation** to **focus on SMEs' green growth** priority setting, **STI foundation enhancement** procedure and value chain integration mechanism to open innovation platform



Forum and Workshop Schedule

■ Contest on Metals and/or Green Vehicle (2017/5~8)

- To be used as reference for the planning of **training curriculum**
- Help APEC members to understand various **regions' market demands** for electric vehicles

■ Forum/workshop(2017/10/17~19)

- **Forum 1 day**
- **Workshop A 1 day: Sheet metal OIP based chiefly on tourism factory**
- **Workshop B 1 day : An Open chassis platform (plug & play OIP) based chiefly on micro electric vehicles**

■ Policy recommendation report



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2017 APEC Design Contest Rules

- **Hosted by: APEC, Ministry of Economic Affairs**
- **Organized by: Metal Industries Research & Development Centre**



Contest Schedule

➤ Important Date

■ Registration Date:

- **Summary Registration Deadline: July 20, 2017** (end of online registration)
- **Submission Deadline: August 15, 2017** (end of uploading entries)

■ Announcement of Final Selection Results:

- before **September 15, 2017**

■ Award Ceremony: **October 17, 2017** in **Kaohsiung, Chinese Taipei**



Contest Rules

Theme A : Metal Dechnology (Design + Technology)

Slogan: Metal dechnology enrich your life

■ Description:

1. Scope of Work:

- The **entry** shall apply the **characteristics of metal materials** (including steel, stainless steel, aluminum, magnesium, titanium, gold, silver, bronze, tin, and all sorts of alloys).
- Composite materials, namely, the combination of metals and other materials (e.g. woods, stones, ceramics, etc.) are acceptable, however, **metal materials shall take up more than 50% of the entry.**

2. Innovation theme: Culture presentation for members of **economics' niche**; special design for **convience** or antibacteria material for **health**; or cultural ingredient for **daily life**



Contest Rules

3. Application Scenario:

- The range of daily life products includes dining room accessories, kitchenware, bathroom accessories, home decor, stationery, gifts, vehicle-related tools, etc.
- The **manufacturability** of the entry should be considered, meaning it should be feasible for efficient **mass production**.

4. Strategy: learning for **current curriculum** or **collaboration with industry** or new **innovation** from research and development

5. Process

- All participants are required to register **online**.
- Official website is under construction, for further detail process information, please e-mail to yea217@mail.mirdc.org.tw





Concept Scenario- Metal

Sword Lion

Case Study

- A historic feature which is believed to have the **power to dispel evil spirit**
- Normally made of wood, clay or plaster
- A popular mural decoration in Anping, a town located in Tainan City



- 1.Extracting the cultural essence: **safety guardian**
- 2.Figuring out how to merge the traditional image into a modern appliance



Clay



Plaster



wood



➤ **What have been done in this case**

- Replacing original material by sheet metal
- Creativity in keeping traditional image by using computer-aided design and advanced laser-cutting machine
- Easy to assembly and mass-produce also be considered
- Affordable for everyone and easy to put in the house



Mural decoration
Product of Metal Creation Museum

➤ More creative products can be derived from the same culture content, and thus adding value to a ordinary products.



DIY sheet metal



Pen holder

Contest for Metal Dechnology





Qualifications

■ Qualification

1. Participants **shall be students** holding proofs of student status from all colleges and universities in the **member economies' countries of APEC** (including college or university students/master students/PhDs).
2. The **project leader shall be a student**. Joint creators can be the supervising professor or other non-students status.
3. **Cross-department networking** is preferred.
4. You may register as **an individual** participant or as **a team**. Whatever type it may be, **at least one of the team members shall be student**. Each entry can have **six creators** at most. The team may include a supervisor, who cannot act as the project leader.

■ **No registration fee is needed for the contest.**



Documents and Entry Submission

1. Registration needed information:

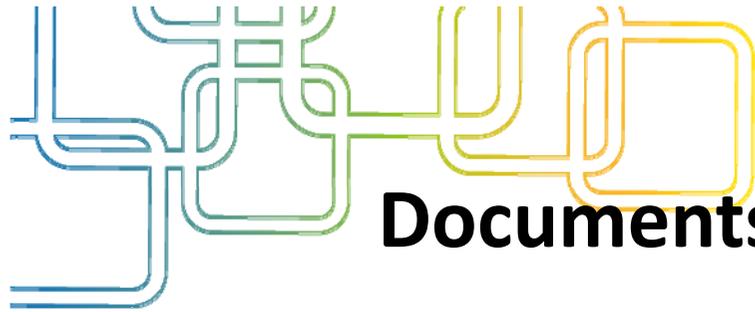
Project leader/Team members/Supervisor professor/liaison-tel.+e-mail+address/APEC member/University or college/Department/copy of Student ID in pdf format.

2. Design drawings:

Theme A : **2 design drawings** (present the **exterior design** and **3D dimensional view** respectively) **【 at jpg format, resolution 300dpi 】**

3. The work of Theme A:

- The dimension of Theme A should be **less than 100 cm×100 cm × 100 cm**
- The registered work should **be designed after Jan. 01,2017**



Documents and Entry Submission

4. **The description to the work** : All the abstract or full article should be written in **English**. **Abstract** should be **less than 500 words**, the **full article** is **no limitation**. The contents should include :
 - a) **Title of work**
 - b) **Scope of Work**
 - c) **Innovation Theme**
 - d) **Application scenario**
 - e) **Strategy and Effectiveness**
5. **Introduction of work could be shown in video or animation-not necessity** : The time of video or animation should be less than **90 sec.** at **mp4** or **avi** or **MPEG** format. Please **upload to a free cloud** and **offer the access link** for contest **positive evaluation** use. **It is not the necessary document/data.**



Awards

■ **Best Creativity Award: 3 Winners for Topic A (Metal Dechnology)**

- **First Prize – US\$ 2,000 & 1 Trophy**
- **Second Prize – US\$ 1,000 & 1 Trophy**
- **Third Prize – US\$ 800 & 1 Trophy**

■ **Associate Award**

- (1) **The top three winners will be invited to Taiwan to receive the awards and attend the APEC summit. The travel expense and accommodation costs will be fully subsidized by the organizer. (If the award winner is a team, only the project leader or an appointed team member assigned by the project leader will be subsidized.)**
- (2) **The top three winning entries under Topic A will have the opportunities to be commercialized and sold on the market by Taiwan's famous distributor.**

Note: The award winners must pay the Income Tax according to the Tax Law of Taiwan



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Thank you for your attention