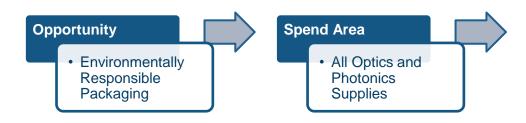
# CERP3 Decarbonization Procurement family 08

**Optics and Photonics** 

## **Current Situation in Procurement family 08 – Optics and Photonics**

- Lasers are used for generating particles, photon beams and particle beams. They are also used for diagnostics.
- ► Although CERN buys 100's of kilometres optical fibres this demand is relatively small verses these suppliers' customers in the telecoms industry.
- ➤ The total spend and estimated GHG emissions are much lower in this Procurement Family compared with others.

# Consider including Environmentally Responsible packaging requirements in the Packaging and Shipping Instructions for suppliers



### **Example Packaging Guidance**

The packaging system should be minimised by weight and volume, whilst still providing the necessary protection to the goods

We encourage suppliers' best endeavours to use recycled packaging materials when providing goods to CERN

We encourage suppliers' best endeavours to use packaging materials with recovery options when providing goods to CERN, i.e. material recycling, energy recovery, composting and biodegradation

For frequent deliveries, we encourage collaborative planning discussions to determine whether it is feasible to agree nominated delivery days in order to reduce the frequency of deliveries

#### **Description**

- Suppliers like
  Thorlabs fulfil on
  average 100
  orders per year
  for Opto Mechanical
  Devices. These
  are reportedly
  overpackaged
  and, as per
  CERN's internal
  distribution
  requirements,
  individually
  packaged
- There is an opportunity to add guidance encourage more environmentally responsible packaging methods

#### Potential

Reusable
 packaging
 eliminates the
 need to recycle
 or remanufacture
 single-use
 packaging,
 reducing CO2
 (greenhouse gas)
 emissions by up
 to 60%

### **Next Steps**

- Engage with CERN Recycling team to support the development of the packaging requirements
- Update and reissue the Packaging and Shipping document to suppliers

# Seek opportunities to consolidate non-urgent orders to 1 day per week to reduce last mile delivery emissions and packaging volumes

### Opportunity

 Order Consolidation

### **Spend Area**

 All Optics and Photonics Supplies



### Description

- Thorlabs fulfil on average 100 orders per year for Opto-Mechanical Devices.
- Individually wrapped parcels are taken from CERN receptions on the Swiss or French sites to end users using internal logistics
- For non-urgent orders an option to consolidate deliveries from punchout catalogues into one day would significantly reduce the emissions of supplier and internal logistics

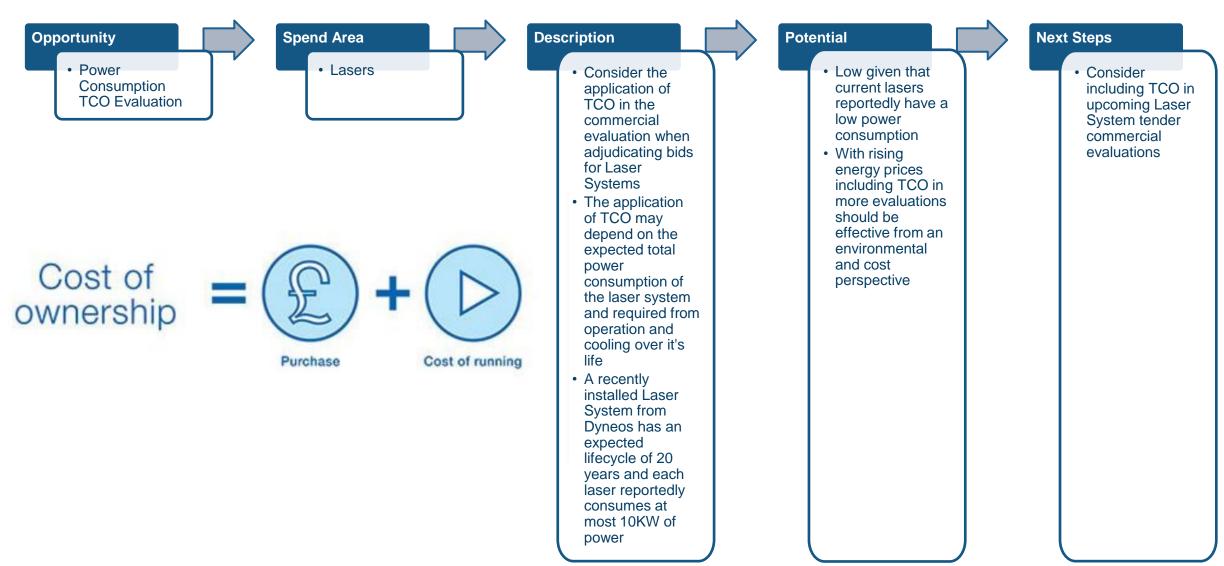
#### **Potential**

- If end users are given the option to schedule deliveries for one day in a week like Amazon's Delivery Day rather than requiring all orders to be delivered within 24-48 hours then this may significantly reduce the number of deliveries to CERN and internal logistics journeys
- This may also allow individual punchout suppliers to consolidate multiple items into single parcels for end users if multiple orders are made across one week
- End users can be encouraged to make this choice from an environmental perspective and this may alleviate some of the reported operational challenges for internal logistics

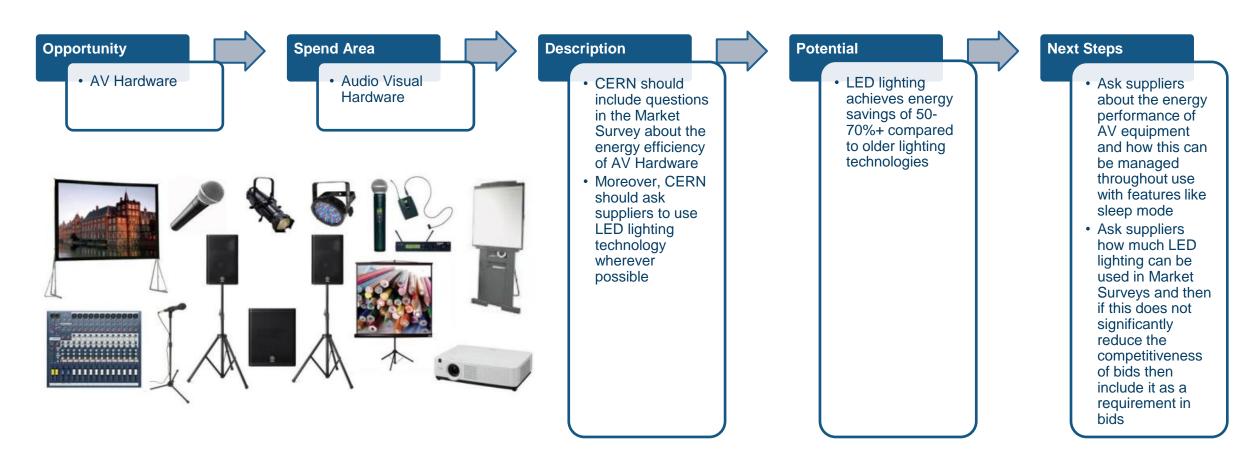
#### **Next Steps**

- Engage Technical Officers to understand if a dedicated delivery day would be suitable
- Ask suppliers and CERN internal logistics team to quantify the environmental impact of moving from 24 to 48 hour delivery only to weekly end user delivery days so this information can be shared with end users

# Incorporate TCO into the commercial evaluation for all upcoming tenders to account for energy consumption



# Ask suppliers to complete a lifecycle carbon assessment so they can compare the environmental responsibility of different AV Hardware



# For Environmentally Responsible Procurement actions that rely on supplier collaboration CERN should prioritize working with engaged suppliers

Supplier seeking to grow their business with CERN are more receptive to sustainability requests.

Opportunity for supplier in the development in terms of sustainability and innovation.

Low potential to drive sustainability issues. If possible consider changing the supply base.

Source. betterprocurement@hpw.qld.gov.au client to the supplier? Development Core Very important client, Very attractive, but currently not a large and very attractive client ಇ is CERN as **Exploitable** Nuisance How attractive Important client, but Not attractive or important client not very attractive How important is CERN activities to the supplier?

Where would suppliers from each Procurement Code place CERN?

- Open to change and to sustainability requests.
- Focus on driving sustainability objectives and influencing the supply market.

- Focus on improving CERN relationship with the supplier.
  - Potential in pushing sustainability agenda through building attractiveness as a client.