

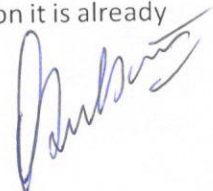
**Participants:** PV Raju (PVR)-Biological E, Abishek Sharma (AS)-Panacea, Adriano Ferreira (AF)-Butantan, Hendra- Biofarma, Kamesh Chimalakonda (KC) -BiologicalE, Ladda Suwitruengrit (LS)-Bionet, Navita Khanna (NK), Rajinder Suri (RS), Shiva Kumar Neela (SKN), Taufik Wilmansyah (TW)- Biofarma, Worrarit Vonghagool (WV)- Bionet.

Sonia Villaseñor (SV)-DCVMN. meeting **started at 12:35 pm CET and adjourned at 13:36 pm CET.**

PVR welcomed the participants and shared a summary of the previous SCWG meeting in May. PVR gave feedback of the agreements made in May's meeting and presented the following results:

**1. Volumetric analysis, information was requested from all members, and received information from 8 members.**

- Initial data of secondary and tertiary packaging has been analyzed identifying 20% dead space in the process.
- Opportunity to optimize Air Freight Cost by using the right packing mix.
- Beneficiaries – UNICEF, PAHO apart from manufacturers for supply to private market orders. It is crucial to select the right container for the air cargo.
- When shipping goods via Air Cargo, there is a choice of shipping container types and sizes based on shipper dimensions and availability of containers. Air freight containers, also known as **Unit Load Devices** (ULD) vary considerably in shape and size to fit into the internal dimensions of the aircraft. Based on the net weight and dimensions of the container there is a maximum load of containers. In general, this activity will be handled by the Freight Forwarder based on their business interest and there is limited information to either buyer or seller about dead space in ULDs esp UNICEF or PAHO shipments.
- From the input received from the member companies regarding their container dimensions, most of them can easily identify the opportunities for improvement. It seems to be a potential opportunity of 20%
- All results were anonymized, but members can approach PVR for individual suggestions.
- PVR suggested some ideal size of shippers.
- Shipper dimensions need to be optimized based on ULD dimensions, so that would require some Cold chain/ transit stability studies for tertiary packaging materials.
- Additional information will be required from DCVMN members to help with proposed suggestions.
- RS said that if everybody is aligned, this would be a good opportunity for all. We could standardize and create a single proposal for UNICEF and PAHO. We can join hands, 5 to 7 companies can give a projection and suggest a model, and what is the net saving. We cannot ask for data, but we can suggest the model.
- PVR We can develop a kind of software with all the standard dimensions of the containers. So, when they enter the shipper size, the software itself will give back the right idea if they are selecting the right container and carrier to ship them out. We would need help from UNICEF or PAHO to use this tool to assess before booking cargo.
- RS pointed out that an in-person **Supply Chain Working Group meeting** needs to be organized in **7-8 December 2023 in Bali, Indonesia.**
- TW said that having the workshop in which each company could receive the suggested dimensions for their tertiary box packaging would be very helpful. Of course, in case of making changes, that would need validation.
- H mentioned that in the guideline of the international shipping UNICEF, 6<sup>TH</sup> edition it is already





mentioned that it should not be over, 50 kg, or 30 kg (TBC). Logistic ratio has been crucial for a shipment of the CCP, and Biofarma already delivers its vaccine to almost 155 countries. The challenge is for the countries that request small quantities through PAHO; e.g. when they only order only 50 vials, then shipping it in a big tertiary packaging would be too costly. He said that what has been previously informed by PVR earlier regarding the most suitable packaging type would be much more effective to that delivery and logistic ratio cost. However, any selection of tertiary packaging would need to be validated.

- PVR assured that all information will be managed in confidentiality.
- NK said that PVR showed a consolidation of all the issues around the WHO guidelines that were made mandatory and implemented in January this year. At Panacea they have completed all the validations and studies, considering the small numbers for UNICEF shipments. They have not faced UNICEF shipments as challenges faced for PAHO. The information presented about PVR will be helpful in general for the manufacturers, and we can come to a common level of understanding and a platform on how the way should be forward.
- AF is the industrial development director of Butantan and will be able to give his inputs as long as he gets more involved in the project.
- KC is from packaging development at BioE, he said that we are in the right moment to make any changes needed and get them validated.

Next steps:

- List out the outer container dimensions and number of shippers per container. They also can provide some input. First, they supplied different containers instead of the model that we are working with. Any advantage is there are not to understand, to assess.
- Standardization of the shipments in line with WHO guidelines.
- Since only 8 members responded, PVR requested to follow up with the other members. He will create a template to be circulated with them.
- Present results in the Workshop in Bali.
- SV mentioned that with this work we could publish an article.

2. Surplus Stockpile listing in DCVMN web site and sharing information among the members for liquidation and WC release.

- Feedback from several vaccine manufacturers based out of India has been received about a substantial amount stockpile of Excipients, Single use consumables and Packaging Materials (Vials, Seals and stoppers).
- PVR requested DCVMN support to upload on DCVMN's website information to facilitate liquidation of surplus inventory amongst members, to avoid expiration of testing materials, and thus, the wastage. Part can be donated. Mention generic name, and also the make.
- Evaluate export requirements and restrictions; or it could be managed by countries.
- SK also suggested contacting the providers, whilst they may not take back the material, they could help the members in identifying potential customers.
- PVR will share the excel template for this also. Once filled in, it could be uploaded on the website.



**PV Raju**  
Chair of the Supply Chain WG