

# Digital Data Packages

Phil Spreier  
Customer Engagement Lead  
Elysium, Inc.



# Presenters Bio

Global Product Data Interoperability Summit | 2022

- **PDF Standards**

- Member ***US TAG – TC 171 SC2  
WG7 (PDF/E) & WG8 (PDF)***
- Lead ***ISO TS 24064 “Document management — Portable Document Format —  
3D data streams conforming to the ISO 10303:242 (STEP AP242) specification”***

- **STEP Standards**

- Member ***US TAG – TC 184 SC4  
JWG16***

- **TDP**

- Member ***AIAG 3D Model Exchange TDP Guideline working group***
- Lead ***Proof of Concept working group***

- **Current**

- Customer Engagement Lead - **Elysium**

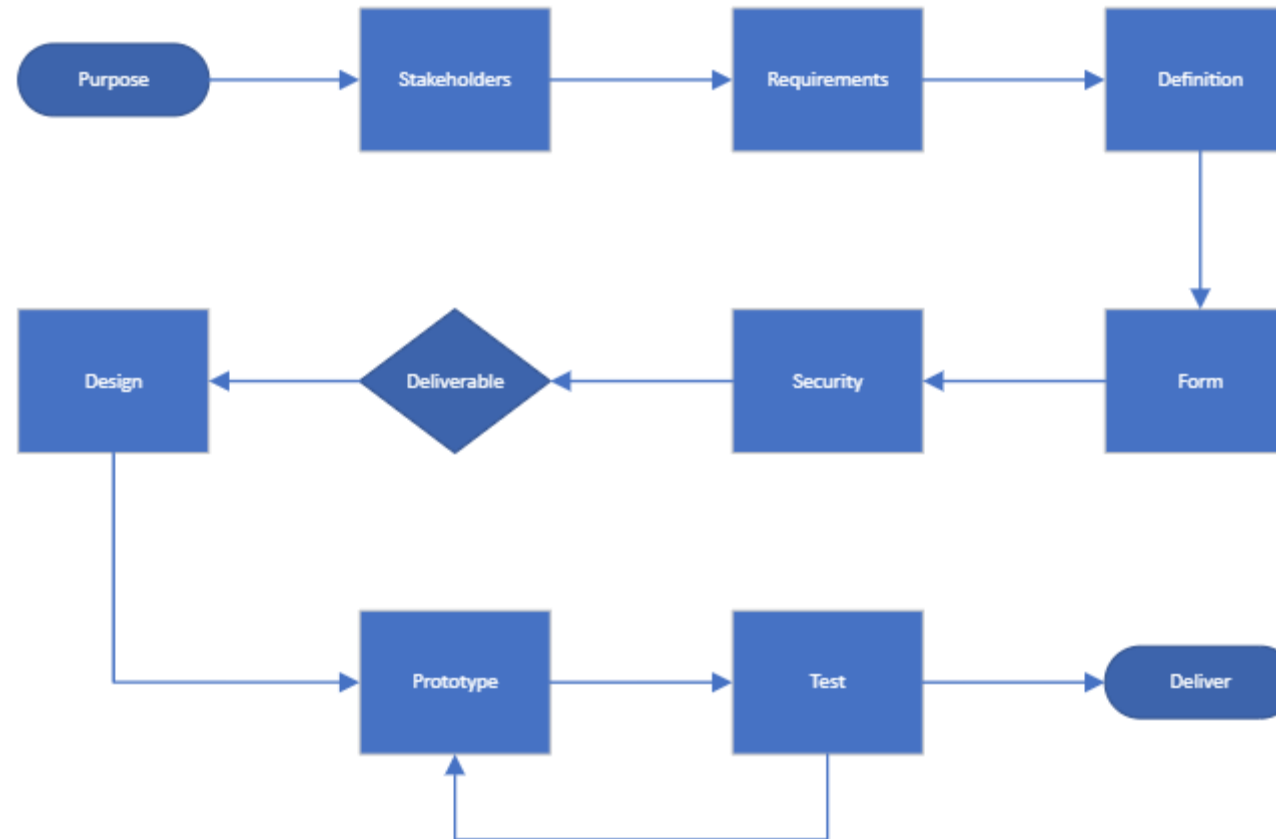
# What is a Digital Data Package?

Global Product Data Interoperability Summit | 2022

- **Technical Data Package (TDP)**
  - A technical data package is a set of electronic files that describes a product or item. These files are used by downstream users in the supply chain and can include 3D models, product and manufacturing data (PMI), bill of material (BOM) and any other necessary data
- **Digital Data Package**
  - A TDP that can be both viewed by a person and processed by a computer

# Suggested DDP creation process

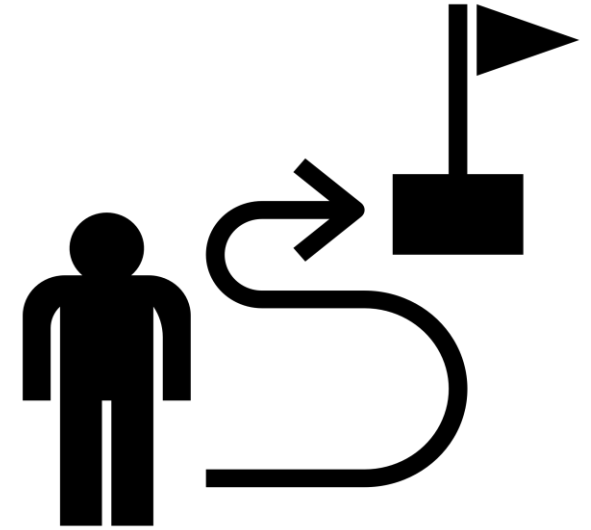
Global Product Data Interoperability Summit | 2022



# Purpose

Global Product Data Interoperability Summit | 2022

- **What process is the TDP for?**
  - RFP/RFQ
  - Quality/First Article Inspection
  - Manufacturing
  - ....
- **Name your TDP accordingly...**
  - Naming your TDP helps to identify its purpose

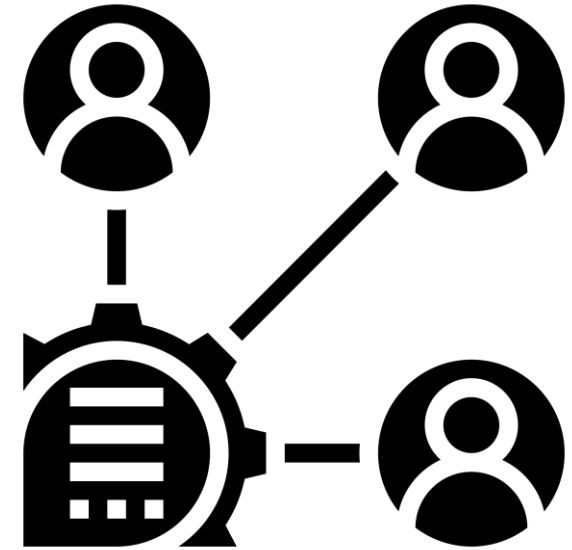


Purpose by Nithinan Tatah from Noun Project

# Stakeholders

Global Product Data Interoperability Summit | 2022

- **Identify the Stakeholders for the TDP**
  - **Creator**
  - **Receiver**
- **Are they**
  - **Part of your organization or outside?**
- **What is their:**
  - **Technical expertise?**

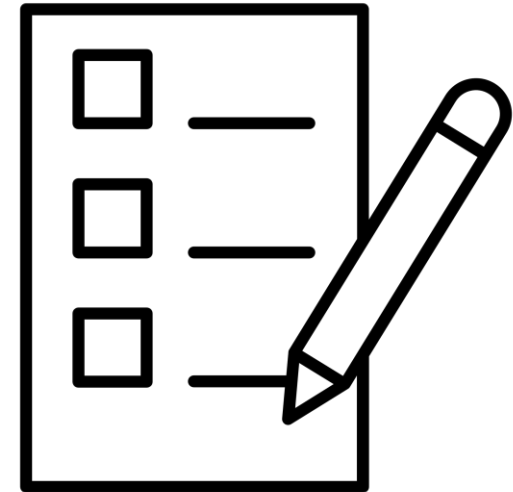


Stakeholders by Eucalyp from Noun Project

# Requirements

Global Product Data Interoperability Summit | 2022

- **Are there requirements on the data or package?**
  - **MIL-STD\_31000**
  - **LOTAR**
  - **NAS 3500**
  - ...

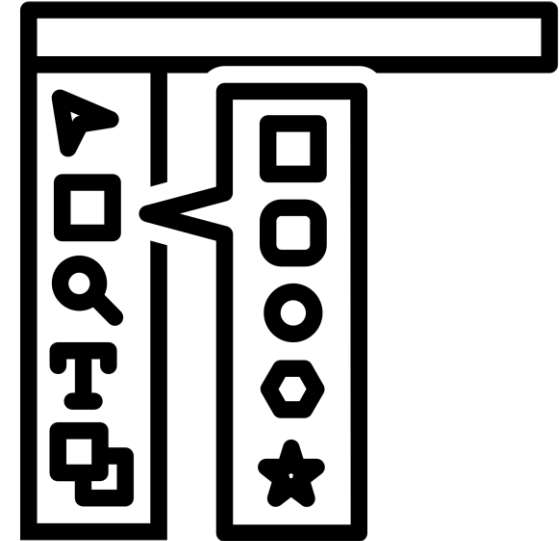


Stakeholders by Pascal Heß from Noun Project

# Definition

Global Product Data Interoperability Summit | 2022

- **Content**
  - Data
  - Metadata
  - Associated data
- **Interaction**
  - **User**
    - Viewing
      - Including associative PMI (cross-highlighting)
    - Annotating
    - Metadata
  - **Machine**
    - Semantic PMI
    - Metadata Schema
    - Manifest



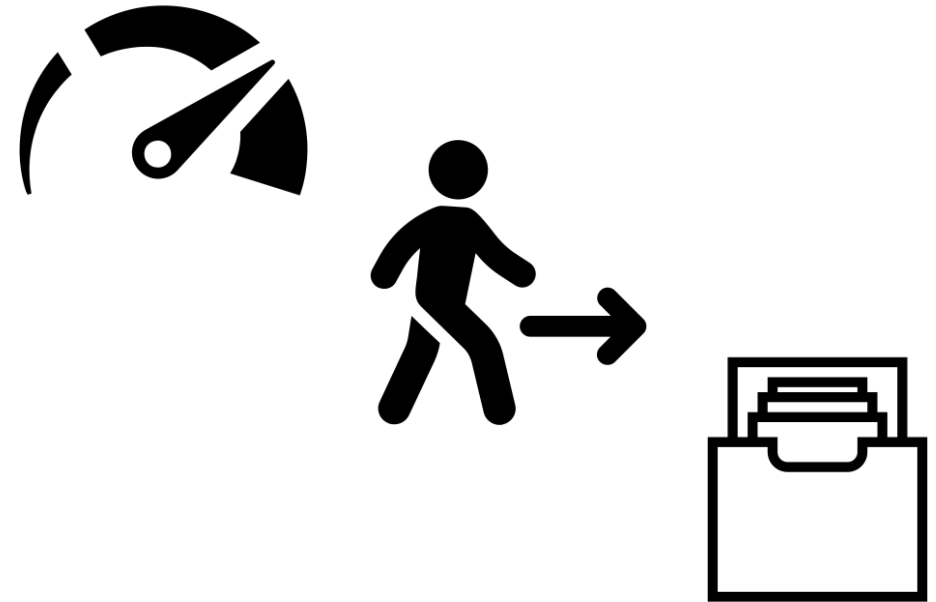
Stakeholders by WEBTECHOPS LLP from Noun Project



# Form

Global Product Data Interoperability Summit | 2022

- **Determine requirements for data form:**
  - **Accessibility**
  - **Performance**
  - **Portability**
  - **Standards compliance**
  - **Usability**
  - **Archivability**



performance by Mohammed Rabiul Alam from Noun Project  
go by Adrien Coque from Noun Project  
archive by Yaroslav Samoylov from Noun Project

# Security

Global Product Data Interoperability Summit | 2022

- **What type of security does your data require?**
  - **None**
  - **Password**
  - **Certificate**
  - **DRM**

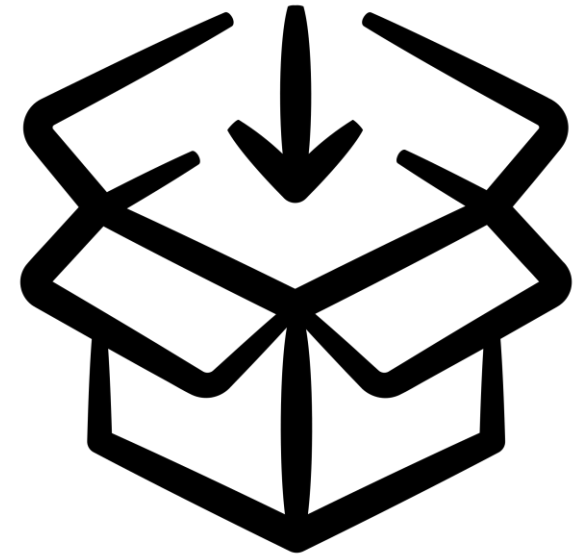


Security by Adrien Coquet from Noun Project

# Deliverable

Global Product Data Interoperability Summit | 2022

- **What format is best for your data package?**
  - **ZIP**
  - **HTML**
    - Multi-file
    - Encapsulated
    - Portal
  - **PDF**

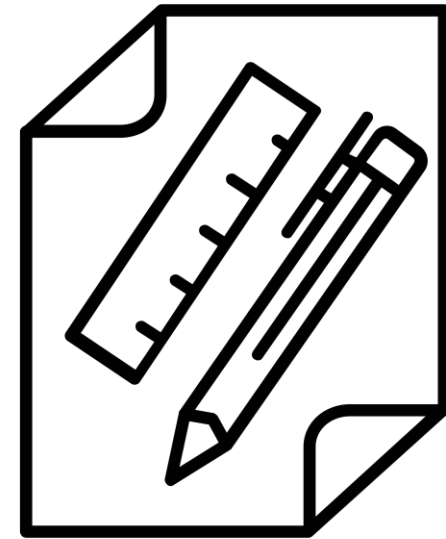


Packaging by Gregor Cresna from Noun Project

# Design

Global Product Data Interoperability Summit | 2022

- **ZIP**
  - File structure
- **HTML**
  - CSS
  - Other...
- **PDF**
  - Template

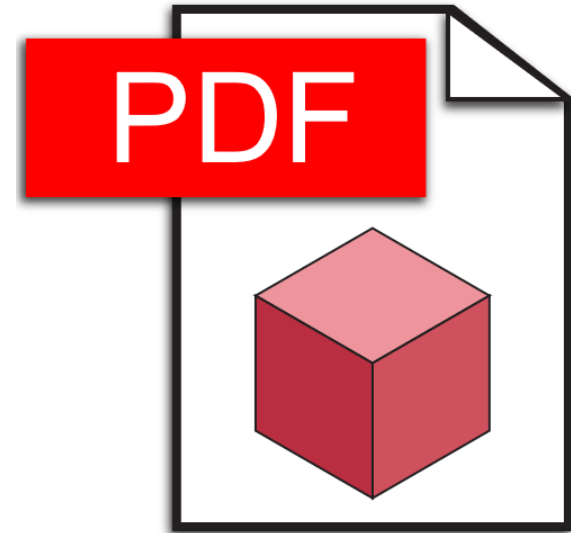


design by Creative Stall from Noun Project

# PDF Templates

Global Product Data Interoperability Summit | 2022

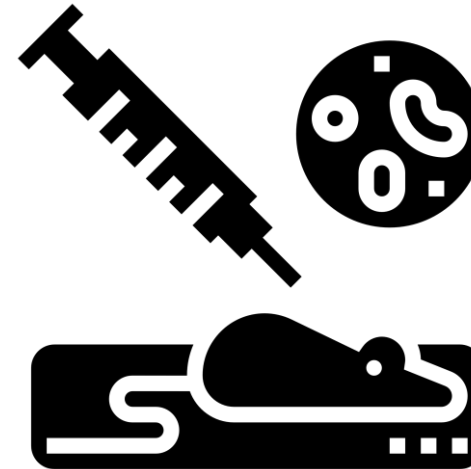
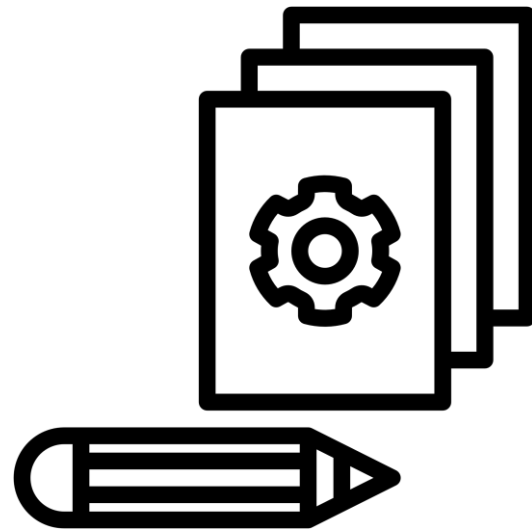
- **Many tools**
  - Microsoft Office Apps
  - Adobe Acrobat
  - Adobe Illustrator
- **Advantages of Adobe Illustrator**
  - Reads/writes PDF files natively
  - Precise placement, spacing
  - Layers
  - ....
- **Combined with Adobe Acrobat**
  - Form fields
  - PDF options
  - Automatable



# Prototype/Test

Global Product Data Interoperability Summit | 2022

- **Suggest extensive user testing**
  - **With documentation/training**
  - **Without documentation/training**

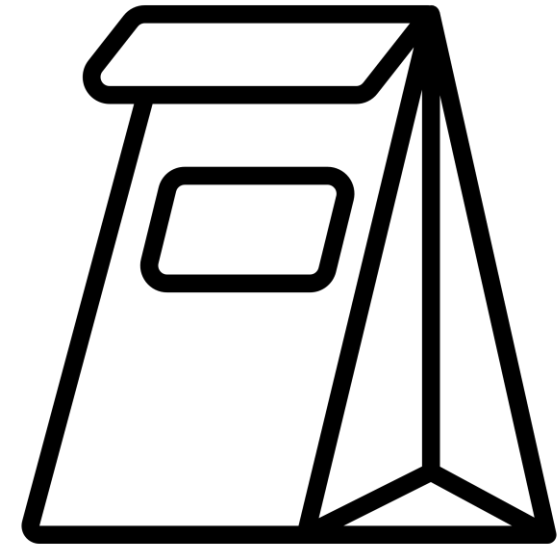


design by Creative Stall from Noun Project  
testing by Eucalyp II from Noun Project

# Takeaways

Global Product Data Interoperability Summit | 2022

- **Design of a Technical Data Package plays a big part in usability**
- **Don't forget metadata!**
  - Machine processing
  - Analytics
- **User testing is highly recommended**
  - Iterative process
  - Multi-age/skill testing



Takeaway by Ben Davis from Noun Project

# Questions?



# Thank You!