



## ISWP Standards Working Group

### April 12, 2017 Standards Working Group (SWG) Meeting Recap

The ISWP Standards Working Group met by conference call on Wednesday, April 12, 2017 from 12:00 p.m. to 1:30 p.m. U.S. Eastern Time. This document provides objectives and a recap.

#### Objectives

1. Discuss progress updates from the subgroups and related future work.
2. Implementation plan.

#### Discussion

1. Scott Walters, Executive Director, Mobility Worldwide presented the mobility cart products to the group.
  - a. The organization was founded in 1994, now has 21 locations.
  - b. Carts provided for people in rural areas where conventional wheelchair won't work. Includes places for carry-on items.
  - c. Products based on travel-related functional requirements of the user.
2. Design Guidelines:
  - a. Work on sections of testing matrix, R&D tests, product procurement recommendations (especially for government tenders).
  - b. Request to all to contribute to section on Unique Design Case Studies.
  - c. Matt plans to add content related to field testing.
3. Caster Testing
  - a. Update slides: <https://drive.google.com/open?id=0B3o-KpFV8x-8STJ4MFlhY21IcHc>
  - b. MIT will be sharing the shock data from the field study with ISWP.
  - c. MIT to send casters to Norm for rolling resistance testing.
4. Corrosion testing
  - a. No Update
5. Whole Chair Testing:
  - a. Component procurements are in progress.



- b. The project has been handed over to RPM technologies as students are done with the term.
  - c. FWM will receive training, then equipment will be transferred to FWM facility in California for OSHA approval before starting to use this summer.
  - d. The group aims to be done in May, visit to South Dakota for training.
  - e. Instrumentation is being handled by HBM, which offers programming flexibility.
6. Rolling resistance testing:
- a. Update slides: <https://drive.google.com/open?id=0B3o-KpFV8x-8VnlMU2I4VDNoamc>
  - b. The group could calculate the error due to moment induced on carriage due to weight.
  - c. Added clutch to belt drive to avoid any errors with reverse rolling after stop.
  - d. Add Pakistan wheel to the list of wheels tested.
  - e. Check influence of pneumatic tire vs solid tire for pediatric users.

### Subgroups (for reference)

- Design Guidelines: Mark Sullivan (lead), Daniel Martin, Jon Pearlman, Norman Reese, Chris Rushman, Eric Wunderlich
- Casters: Anand Mhatre (lead), Matt McCambridge, Jon Pearlman, Norman Reese, Don Schoendorfer, Joseph Ott, Stephanie Lachell
- Corrosion: Matt McCambridge, Don Schoendorfer, Anand Mhatre, Jon Pearlman
- Rolling Resistance: Norman Reese (lead), Matt McCambridge, Jon Pearlman
- Whole Chair Testing: Don Schoendorfer, Matt McCambridge, Josiah Auer, Mark Sullivan, Daniel Martin, Jon Pearlman, Norman Reese, Anand Mhatre, Dave Mahilo, Joseph Ott



## Participants

- ✓ Daniel Martin, Shonaquip
- ✓ Matt McCambridge, MIT
- ✓ Norman Reese, LeTourneau University
- ✓ Rachel, LeTourneau University
- ✓ Don Schoendorfer, Free Wheelchair Mission
- ✓ Karl-Erik Westman, Handicap International
- ✓ Eric Wunderlich, LDS Church
- ✓ Chris Rushman, Motivation
- ✓ Dave Mahilo, Invacare
- ✓ Dr. Rory Cooper, University of Pittsburgh
- ✓ Anand Mhatre, University of Pittsburgh
- ✓ Dr. Jonathan Pearlman, University of Pittsburgh
- ✓ Nancy Augustine, University of Pittsburgh
- ✓ Ben Gebrosky, University of Pittsburgh
- ✓ Scott Walters, Mobility Worldwide
- ✓ Josiah Auer, Free Wheelchair Mission
- ✓ Joseph Ott, University of Pittsburgh
- ✓ Stephanie Lachell, University of Pittsburgh
- ✓ Krithika Kandavel, ISWP

Prepared by: Anand Mhatre, University of Pittsburgh