



CLEVELANDNEW

NEURAL ENGINEERING WORKSHOP

June, 2017 | Cleveland, Ohio | ClevelandNEW.org

PARTICIPANT GUIDE



FIRST THINGS FIRST

Thank you for providing your time, and more importantly, your expertise to participate in the 2017 ClevelandNEW meeting. The NEW meeting is a workshop with the goal of creating a strategic direction for the field. Your skill leadership and input will be essential to the meeting's success.

OBJECTIVE: Strengthen the neural engineering community, align action to more effectively achieve our vision, build a common voice to affect change, and develop a strategic plan for advancing our field. This workshop will produce a Strategic Direction Roadmap with defined vision, goals and deliverables for each theme. The roadmap can be used as a common message such that we all speak in a common voice to more effectively drive strategic activities.

GOAL: To develop the strategic roadmap with a defined vision, goals, and deliverables for the critical themes defining Neural Engineering for the next 20 years. ClevelandNEW will strengthen our field by establishing a **common voice** to drive the national and global initiatives vital to our growth and success

OUTPUT: A unified consensus document that will be distributed via multiple avenues following the meeting. We will complete the bulk of this document during the meeting and final edits before end of the summer. This document should provide a guide to aligning our activities such that our community can enhance our impact on healthcare and align activities to maximally affect our success.

YOUR ROLE: To complete this document in the short time of the conference, your preparation and leadership are essential.

- *Preparation* to establish a foundation for valuable discussion.
- *Facilitation* of the meeting discussions to keep it on track.
- *Coalescing* the information from the sessions to a unified strategy

THEMES: There are currently seven themes that build on the discussions at the 2015 ClevelandNEW meeting. The leaders of preparing the themes are noted here.

- **Consumer:** Dawn Bardot, dbardot@MDIC.org
- **Innovation:** Chet Moritz, ctmoritz@uw.edu
- **Industry:** Sat Pannu, sat.pannu@nevro.com
- **Clinical Practice:** Mark Richardson, richardsonrm@upmc.edu
- **Regulatory:** Cristin Welle, cristin.welle@ucdenver.edu
- **Funding:** Chris Czura, cczura@northwell.edu
- **Reimbursement:** Dustin Tyler, dustin.tyler@case.edu

MEETING OVERVIEW:

There will be 8 sessions to the meeting (see the detailed agenda later in this document). Within each theme group, there will be about 20 of your colleagues. Within several sessions, you will break into small groups of 5-8 or so that every voice can be heard. The common and strongest ideas will be captured and strengthened to a common community voice.

1. **Confirmation and Key Factors:** The first session will introduce the themes and identify the 2 or 3 key factors for each theme that will engender discussion for the overall meeting.
2. **Why:** the common motivational force in our work. It should describe the passion that drives each of us. Articulating, unifying, and amplifying this motivational core provides the fuel to our progress.
3. **Vision:** Foster the vision of where neural engineering within the context of this theme will be in 20 years.
4. **Goals:** Establish the 5 year tangible goals within this theme.
5. **Deliverables:** Define clear and measurable action items that can be accomplished within the next two years that will drive achieving the goals.
6. **Summary:** Summarize the output of the workshop related to your theme.

RESOURCES:

We will have plenty of help in accomplishing the objective of the meeting. Each theme will be assigned a **professional writer** to capture and document the results of the session in the workshop output document. The workshop sessions are organized with each session dividing further into sub-groups of no more than 8 people per group to facilitate discussion. The professional writers will manage several graduate student **scribes** that will capture the output of individual discussion sub-groups within the theme discussions.

SHAREPOINT:

The meeting collaboration and information will be facilitated and available on the following SharePoint site:

<http://bit.ly/2s8ENdC>

and via the Slack communication application available at:

<https://clevelandnew.slack.com>

All necessary documents and information will be posted to the SharePoint site and shared as appropriate on the Slack channel. Documents will include this document, scribe notes, presentations, and the output document as they are completed. You will receive an invite to the SharePoint site and should make sure you have a channel connection on Slack. If you have not by Tuesday before the meeting, please contact Kevin Tloczynski (kevin.tloczynski@va.gov) for assistance.

We will provide all documentation online and will be expecting you to participate online with the meeting. You will need to have a laptop with you for the meeting. There will be power outlets available and free high-speed Wi-Fi.

EXECUTIVE COMMITTEE:

If you have any questions during the meeting, contact one of the members of the executive committee listed below to help.

- Dustin Tyler (Chair) dustin.tyler@case.edu
- Chris Czura cczura@northwell.edu
- Jen French jfrench@neurotechnetwork.org
- Bob Kirsch rfk3@case.edu
- Kevin Otto kevin.otto@bme.ufl.edu
- Forest Pape forrest.pape@medtronic.com
- Jennifer Sweet jennifer.sweet@uhhospitals.org
- Ron Triolo rxt24@case.edu
- Cristin Welle cristin.welle@ucdenver.edu

PARTICIPANT INFORMATION

VENUES

There are two primary venues for the meeting. The working sessions during the day will be in:

The Global Center for Health Innovation

1 St Clair Ave NE
Cleveland, OH 44114
216.928.1600

The Drury Cleveland Downtown Plaza

1380 E 6th St
Cleveland, OH 44114
216.357.3100

DURING YOUR SESSIONS

The meeting is divided into 7 themes as identified during NEW 2013 and confirmed at NEW 2015.



The meeting is divided into three days with the following foci:

- Day 1: Establish the **Why & Vision**
- Day 2: **What** we do to achieve the **Vision**, focus on 2-5 goals.
- Day 3: **1^o** and **How** we achieve the goals

You will participate in discussions for three or four themes each day, thereby maximizing the communication and interaction of all stakeholders. We seek a common, aligned, and prioritized consensus about the future directions of the field.

Theme leaders and executive committee will meet at the end of each day to consolidate the output from the day's discussions. The results from the preceding day will drive the subsequent day's discussions.

STEP 1 | DAY 1 (WEDNESDAY) – WHY / VISION / KEYS TO SUCCESS

INTRODUCTION 15 MINUTES

The meeting will start with a 15-minute introduction for each Theme by the theme leader to the full NEW assembly. In this 15-minute introduction the theme leader will define the current state of the theme and its importance to the field as defined in the 2013 and 2015 meetings. The outcomes and progress in defined directions from the 2015 meeting will be reviewed and modified. Comments and input should be provided by the full assembly to frame the discussions of the next three days.

WORKING SESSIONS

Why drives us. **Why** gives substance and purpose to a common **Vision**. Together these are the bedrock of future success. On Wednesday, the goal of the meeting is to define **Why** and **Vision** of the community and then roadblocks to achieving the vision. On Wednesday we will step outside of the usual day driving by deadlines and crisis to dream and think about the grand challenges.

WHY:

Why should be the common motivational force in our work. It should describe the passion that drives each of us. Articulating, unifying, and amplifying this motivational core provides the fuel to our progress.

Probing questions:

- Why do we work in this field?
- Why is our work important? Why does it matter to people?
- Why are we emotionally connected to this work?
- Why did we dedicate our lives to this pursuit?
- What is *THE* purpose of our work?

VISION:

Vision defines what the field should look like in 10 to 20 years. Vision transforms the broad and inspiring **Why** into a specific motivating direction for neural engineering. The vision should be shared by the entire field.

Probing questions:

- What does success look like in 20 years?
- What are the grand challenges that need to be addressed?
- What would you like to see changed?
- What is my dream for the field?
- How would things be different if the dream came true?
- Why do we need to address the problems of this field?
- What are the greatest strengths of our field?
- What would success look like?

KEYS TO SUCCESS:

The **Keys to Success** define the key enablers and barriers related to successfully achieving the **Vision**.

Probing questions:

- What are the key barriers to achieving the vision?
- What are the key objectives that need to be achieved to be successful?

STEP 2 | DAY 2 (THURSDAY) – WHAT

INTRODUCTION 15 MINUTES

The theme leaders will provide 15 summaries of the conclusions from the day previous day workshop session to the full assembly. Comments and input should be provided by the full assembly to finalize the results of the prior day and frame the sessions for this day.

WORKING SESSIONS

The second conference day is to define **What** needs to be done in the next 2-5 years to successfully achieve the **Vision**. These sessions will move from the dreaming of Day 1 to more substantial goals. Also important in defining the **What** are metrics to assess achievement of the established goals.

WHAT

What needs to be done to achieve the **Why** established on Day 1. The shape of the **What** will differ between themes. For example, in the regulatory sessions, one of the more impactful outcomes of the meeting toward affecting change might be a consensus document representing the discussion of 70+ leaders in the field, i.e. NEW participants. The writers at the meeting will be capturing the discussions and consensus of the meeting. By definition, this is a

GOALS:

Goals define forward movement. Be sure to remain focused on the longer-term directional goals and not as much on short-term specifics. Specific tactics will be address in Day 3.

Objective of the discussions:

- Establish the 2-3 sufficiently broad goals that need to happen to achieve the vision
 - The goals must be achievable in 2-5 years and support the vision.
 - These goals must be necessary and assessable.
 - The goals will serve as “progressive milestones” and be reviewed at NEW 2019 and 2021.
- *Probing questions:*
 - What quantifiable results or desired achievements are required to indicate that progress is being made in the next 18 to 24 months to reach the vision described for this theme?
 - Is there a first step (or stage) that must be reached to achieve the overall vision?
 - What is that first step?
 - What subsequent steps must take place?

METRICS:

Metrics assess progress toward the goal. They can include specific tactics, i.e. actions for the next 2 years, but more importantly be objective and measurable.

- Identify 2-3 measurable metrics and specific tactics that influence the metrics. These will drive the discussions of Day 3.
- *Probing questions:*
 - What “something” can be done or delivered, that is a realistic expectation for this group?
 - What are the events, tasks or actions that must take place to progress towards the goals?
 - How is the specific activity measured and quantified?

STEP 3 | DAY 3 – HOW

Nothing is achieved without action. Each of us, however, is fully consumed each day by our work. While past NEW discussions have generated significant excitement and enthusiasm with lots of “I will work on that” sentiment at the meeting, the return to the “real world” tends to make new initiatives difficult. Rather, 2017 NEW will have defined vision, goals, and metrics. In Day 3, we take a realistic view of our daily activities and define the small changes in daily activity that will shift the course of action toward the unified vision. Even small changes in everyday activity will have significant changes in achieving the 20-year vision.

WORKING SESSIONS

HOW (1^oΔ):

Probing questions:

- What realistic change in your activity and that of your colleagues will achieve the new goals driving to the common vision?
- How do we continually maintain focus on the common vision?
- How do we maintain momentum over the next two years?
- How will you lead this community in aligning action?
- Who else needs to participate in activity to make this change in activity successful?
- How can you engage this additional constituency?

DETAILED AGENDA

OBJECTIVE

This meeting is designed to coordinate and collaborate across the seven critical operational segments that are vital to successful ideation, innovation, translation, and implementation of neural engineering solutions to medical needs. By strengthening and harmonizing a common vision and voice the neural engineering industry will more efficiently meeting the needs of those that need the technology. The meeting will be most successful if we can arrive at the 1^o moment for all us. That is to assess what 1^o change in what we do today in our positions of leadership will provide the biggest impact on the success and growth of the field. The meeting is organized to establish the Vision and **'WHY'** neural engineering matters in 20 years, and the 5-10 year goals to achieve the vision on Wednesday; on Thursday, determine **'WHAT'** the field needs to do over the next 2-5 years to move to fulfill the vision; and on Friday and **'HOW'** each of us can make a small, but strategic change in what we do daily to reach meet the goals needed to realize the vision.

WEDNESDAY, JUNE 21

'Vision' Day

'WHY' we pursue neural engineering

8:00 - 8:30 am	Welcome / Workshop Description
	MORNING THEME CATEGORY: Technology and Delivery (Innovation, Industry, Consumer, Clinical Practice)
8:30 - 9:30 am	Theme Introductions - FULL ASSEMBLY 15 minutes each to introduce the current state of the theme and seed the questions for the morning discussions.
	<ul style="list-style-type: none">• Consumer: Dawn Bardot• Innovation: Chet Moritz• Industry: Sat Pannu• Clinical Practice: Mark Richardson
9:30 - 10:00 am	Break
	WORKING GROUPS Concurrent small-group, interactive sessions Each participant will be pre-assigned to tables and groups based on their theme priorities selected at registration Charge: Establish 'WHY' NE matters, the Vision (20 years), Goals (5-10 years) of the specific theme in supporting the answer to 'WHY'
10:00 - 11:00 am	SESSION 1-1 - Assigned small discussion groups in one theme
11:00 - 11:30 am	SESSION 1-2 - Mix it up! Switch to new assigned tables in same theme

11:30 - 11:45 am	Break / Transition to next session
11:45 - 12:30 pm	SESSION 1-3 - Switch to new assigned table, in new theme
12:30 - 1:30 pm	Lunch
	AFTERNOON THEME CATEGORY: Support and Assurance (Regulatory, Funding, Reimbursement)
1:30 - 2:15 pm	Theme Introductions - FULL ASSEMBLY 15 minutes each to introduce the current state of the theme and seed the questions for the morning discussions. <ul style="list-style-type: none"> • Regulatory: Cristin Welle • Funding: Chris Czura • Reimbursement: Dustin Tyler
2:15 - 2:30 pm	Break / Transition to session
	WORKING GROUPS Concurrent small-group, interactive sessions Each participant will be pre-assigned to tables and groups based on their theme priorities selected at registration Charge: Establish 'WHY' NE matters, the Vision (20 years), Goals (5-10 years) of the specific theme in supporting the answer to 'WHY'
2:30 - 3:30 pm	SESSION 2-1 - Assigned small discussion groups in one theme
3:30 - 4:00 pm	SESSION 2-2 - Mix it up! Switch to new assigned tables in same theme
4:00 - 4:30 pm	Break / Transition to next session
4:30 - 5:15 pm	SESSION 2-3 - Switch to new assigned table, in new theme
5:30 - 6:30 pm	Social hour at Drury "5:30 Kickback"
6:30 pm	Shuttle to <i>Collision Bend Brewery</i> (Departs from Rockwell Ave entrance of Drury Plaza Hotel)
6:45 - 9:30 pm	Dinner at <i>Collision Bend Brewery</i> , 1250 Old River Rd, Cleveland, OH 44113
9:30 pm	Shuttle departs <i>Collision Bend Brewery</i> to return to <i>Drury Plaza Hotel</i>

THURSDAY, JUNE 22, 2017

'What' Day

'WHAT' are the 2 to 5-year tangible "deliverables" to achieve the goals

8:30 - 9:30 am	Day 1 summaries - FULL ASSEMBLY MORNING THEME CATEGORY: Technology and Delivery (Innovation, Industry, Consumer, Clinical Practice) Morning themes, 15 minutes each to summarize the 'WHY' and Vision from Day 1 to prepare the discussions about 'WHAT' are the 2-year deliverables
9:30 - 10:00 am	Break WORKING GROUPS Concurrent small-group, interactive sessions

	<p>Each participant will be pre-assigned to tables and groups based on their theme priorities selected at registration</p> <p>Charge: Define 'WHAT' needs to be done in the next 2 years to achieve the vision and goals from Day 1. Establish tangible deliverables/measures of progress.</p>
10:00 - 11:00 am	SESSION 3-1 - Assigned small discussion groups in one theme
11:00 - 11:30 am	SESSION 3-2 - Mix it up! Switch to new assigned tables in same theme
11:30 - 11:45 am	Break / Transition to next session
11:45 - 12:30 pm	SESSION 3-3 - Switch to new assigned table, in new theme
12:30 - 1:30 pm	Lunch
	AFTERNOON THEME CATEGORY: Support and Assurance (Regulatory, Funding, Reimbursement)
1:30 - 2:15 pm	<p>Theme Introductions - FULL ASSEMBLY</p> <p>Afternoon themes - 15 minutes each to introduce the current state of the theme and seed the questions for the morning discuss</p>
2:00 - 2:30 pm	Break / Transition to session
	<p>Concurrent small-group, interactive sessions</p> <p>Each participant will be pre-assigned to tables and groups based on their theme priorities selected at registration</p> <p>Charge: Define 'WHAT' needs to be done in the next 2 years to achieve the vision and goals from Day 1. Establish tangible deliverables/measures of progress.</p>
2:30 - 3:30 pm	SESSION 4-1 - Assigned small discussion groups in one theme
3:30 - 4:00 pm	SESSION 4-2 – Mix it up! Switch to new assigned tables in same theme
4:00 - 4:30 pm	Break / Transition to next session
4:30 - 5:15 pm	SESSION 4-3 - Switch to new assigned table, in new theme
5:30 - 6:30 pm	Social hour at Drury "5:30 Kickback"
6:30 pm	<p>Shuttle to <i>Coastal Taco</i></p> <p><i>(Departs from Rockwell Ave entrance of Drury Plaza Hotel)</i></p>
6:45 - 9:30 pm	Dinner at <i>Coastal Taco</i> , 1146 Old River Rd, Cleveland, OH 44113
9:30 pm	Shuttle departs <i>Coastal Taco</i> to return to <i>Drury Plaza Hotel</i>

'1°' Day

'HOW' a small change will affect the biggest impact on the field



MORNING THEME CATEGORY: Technology and Delivery
(Innovation, Industry, Consumer, Clinical Practice)

Participants will start in the assigned morning themes for discussion as an entire theme, not small individual tables. The goal of the discussion is to Determine '**HOW**' each participant can make small, 1° changes in their everyday work to align and move toward the overall Vision, Goals, and Measurables established in the first two days of the workshop.

8:00 - 8:45 am	SESSION 5-1 - Assigned small discussion groups in one theme
8:45 - 9:30 am	SESSION 5-2 - Switch to new assigned table, in new theme
9:30 - 9:50 am	Break

AFTERNOON THEME CATEGORY: Support and Assurance
(Regulatory, Funding, Reimbursement)

Participants will go to their assigned afternoon themes for discussion as an entire theme, not small individual tables. The goal of the discussion is to determine '**HOW**' each participant can make small, 1° changes in their everyday work to align and move toward the overall Vision, Goals, and Measurables established in the first two days of the workshop.

9:50 - 10:30 am	SESSION 6-1 - Assigned small discussion groups in one theme
10:35 - 11:20 am	SESSION 6-2 - Switch to new assigned table, in new theme
11:20 - 11:40 am	Break / Box Lunch

Wrap-up and summary

11:40 - 2:00 pm	Theme summaries - FULL ASSEMBLY 20 minutes per theme - Each Theme Leader will present a summary of the meeting output for the respective theme. There will be a chance for comments and input from the full assembly.
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2:00 pm	Workshop Concludes
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****Agenda is subject to edit prior to workshop.***