HUMAN-CENTRIC WORKING GROUP

1. Health, wellness preservation/enhancement
   • Data-driven medicine (how do devices work with physical protocols?)
   • Personalized medicine (what is role of personalized vs aggregate data)

2. Ability to interact efficiently with smart everything
   • Cognitive agents are large in number and highly sophisticated/complex
   • Interactions must be on a cognitive level (agents to control inference, high-level planning, behavior adaptations,...)
   • Human-to-human, human-to-machine interactions

3. Enhanced tactical thinking
   • Provide contextual decision support
   • Adapt to unexpected situations
   • Creatively solved problems (synthesize solution space)
CONNECTION TO NANO

• Nano needs to be thought as enabling integration
  – Energy efficiency
  – Sensing efficiency
  – Harvesting efficiency
  – Flexibility
• Nano can change what you can do locally
• Connection to Biology
MOVING THE NEEDLE FORWARD

• Moonshots
  – Closed-loop
  – Adaptive
  – Vision / Natural language
  – Small computation / Big computation

• Fundamental limits
  – Assumptions needed