



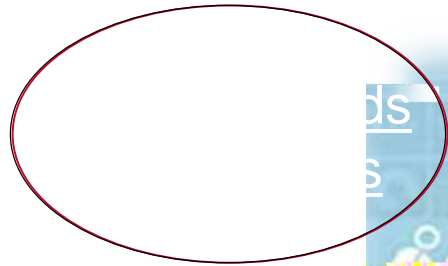
TOPICS

– The Future of Wearable Technology

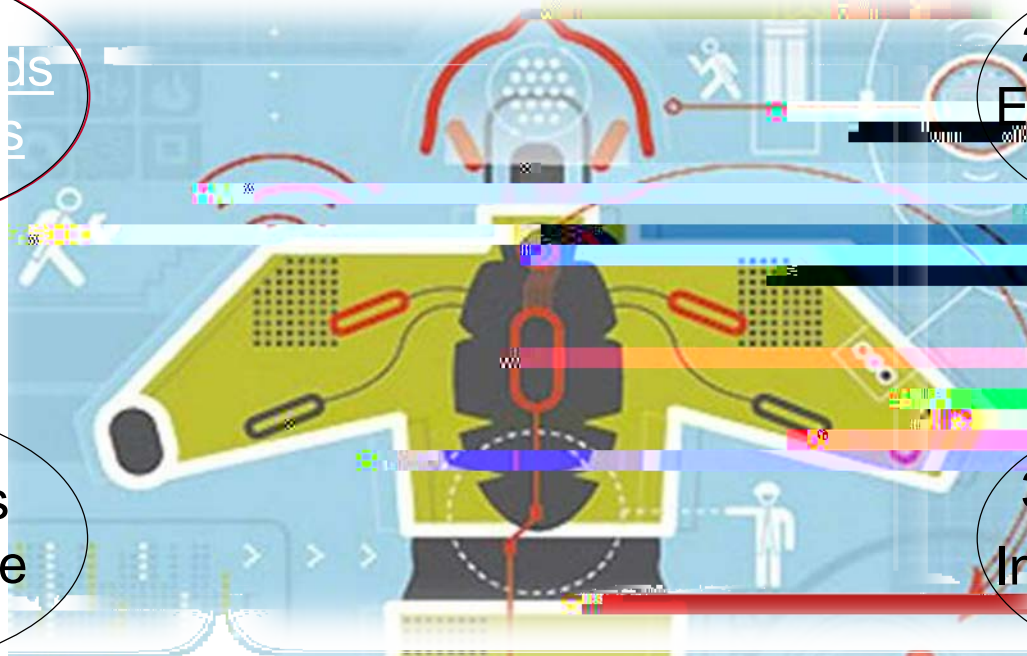


TOPICS

– The Future of Wearable Technology



2) Fire Service
Electronic Safety
Equipment



4) Thoughts
for the Future

3) Data, Data,
In a Sea of Data



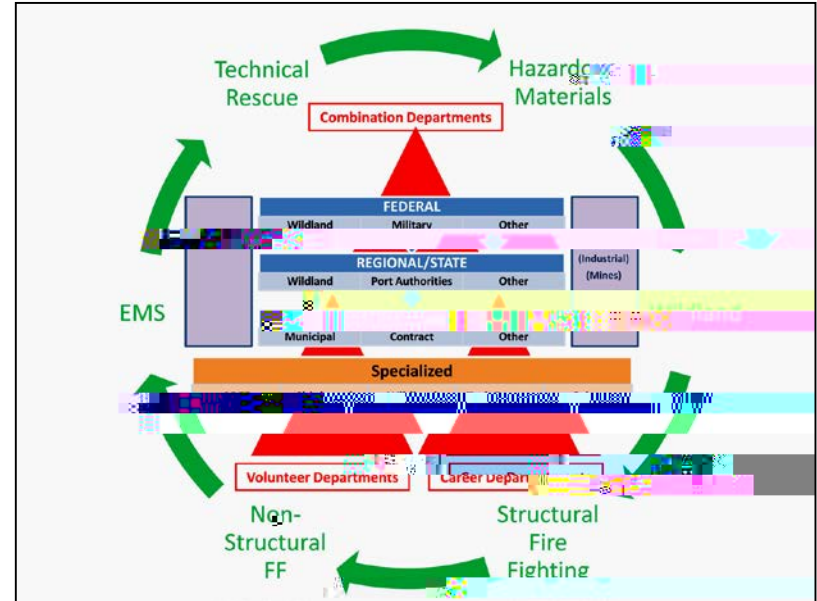
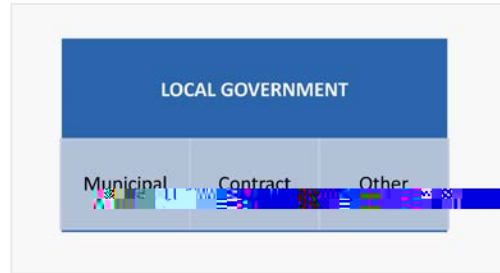
A Few Words on the Basics



as an organization



Working with Fire Departments and Fire Brigades



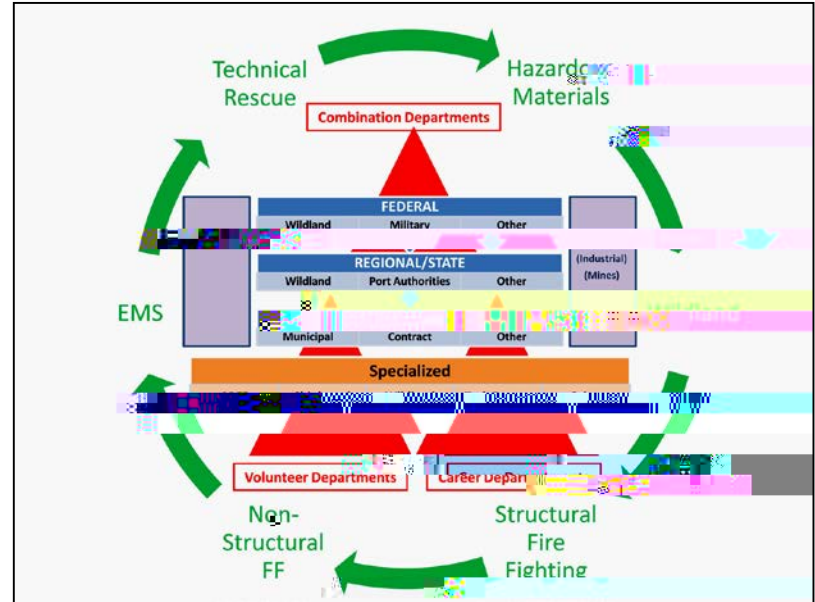
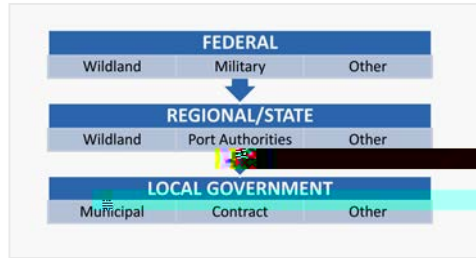
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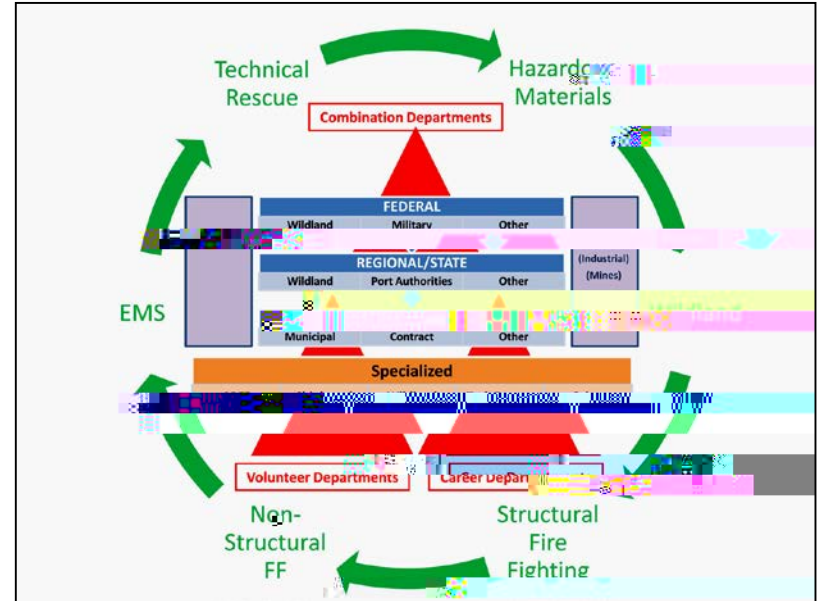
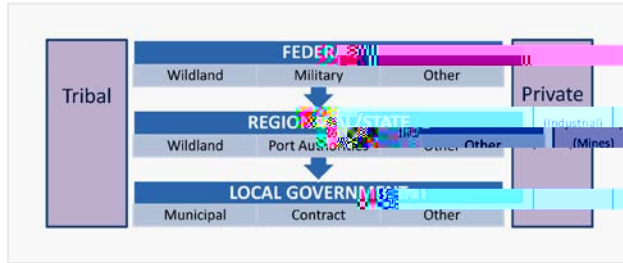
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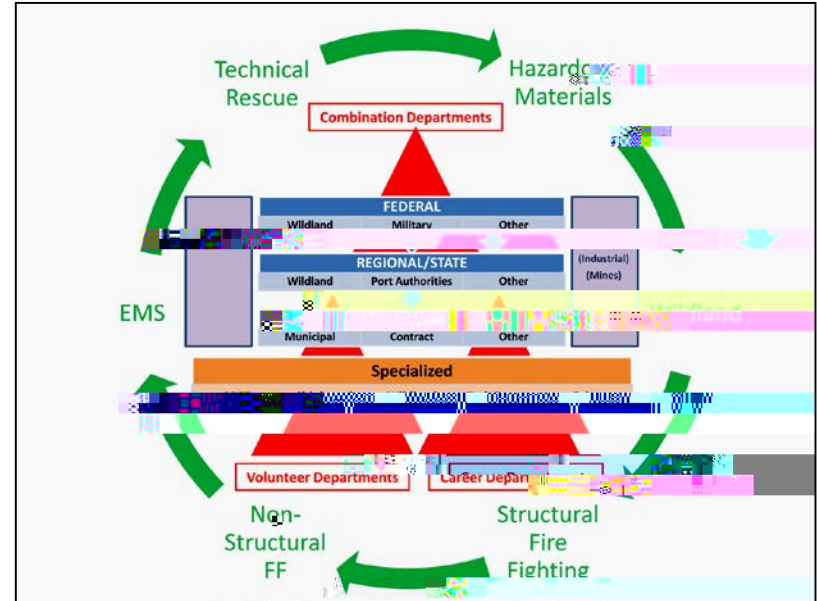
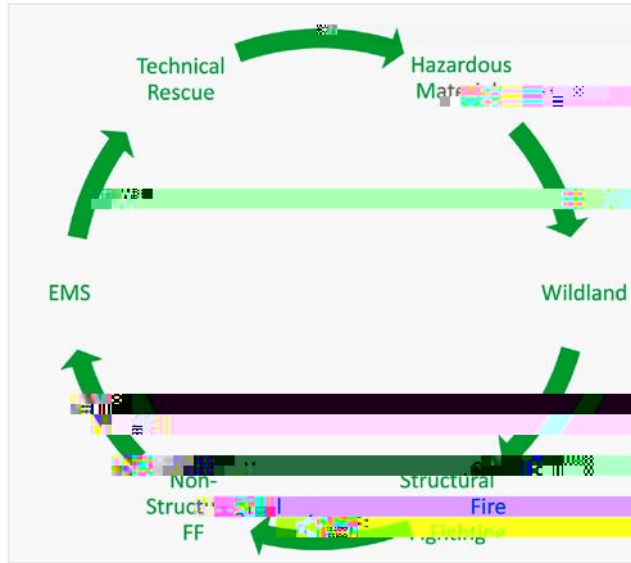
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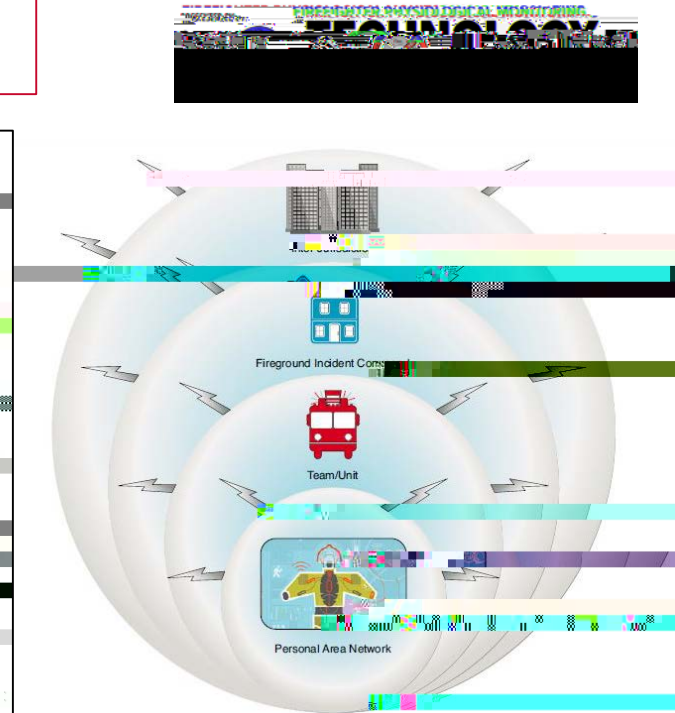
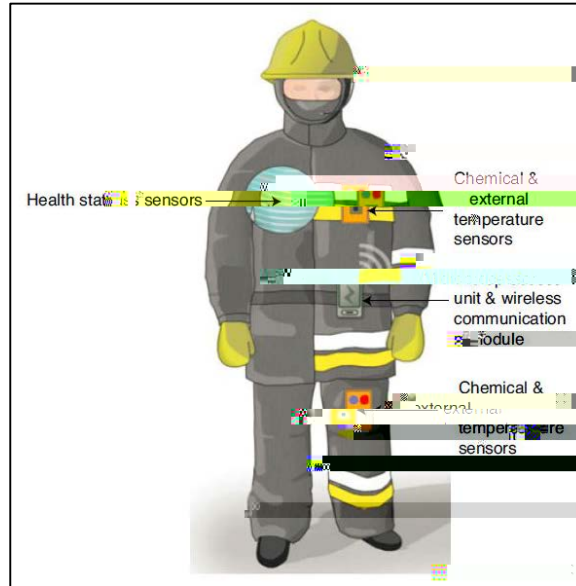


Working with Fire Departments and Fire Brigades



A Few Words on the Basics

- Generally focused on the Personal (and Personnel) Area Network
- Carried directly by a fire fighter



A Few Words on the Basics



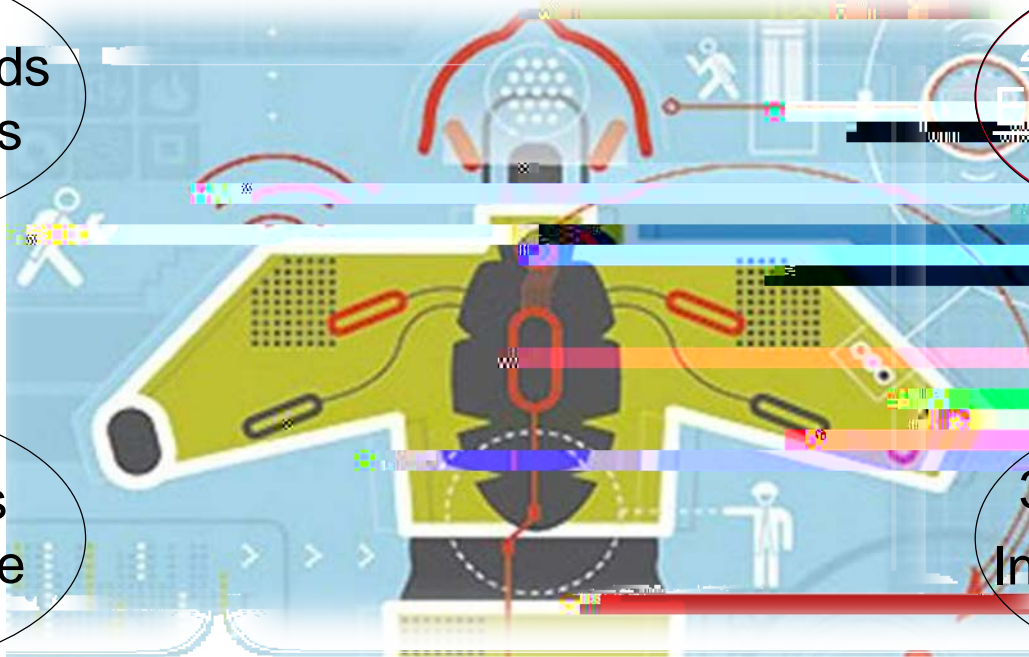
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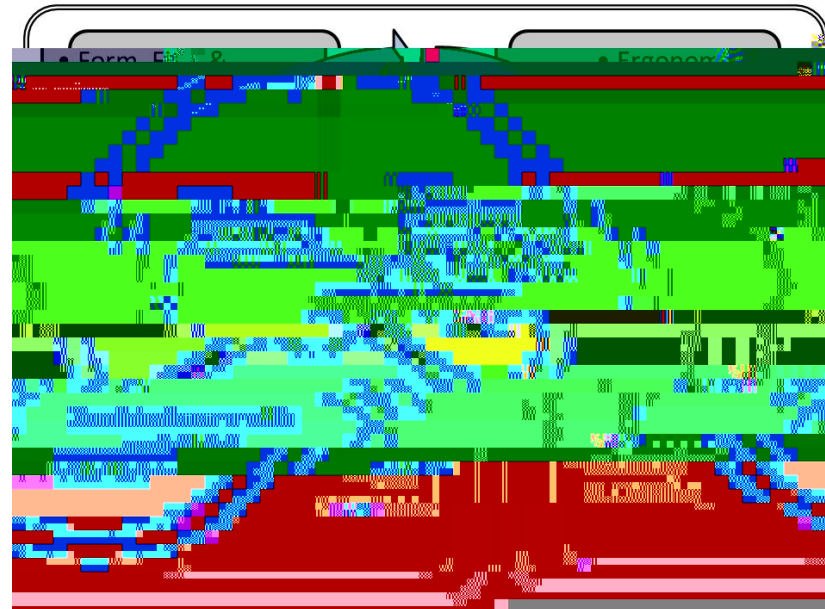
Fire Service Electronic Safety Equipment



Fire Service Electronic Safety Equipment



- Key Interoperability Performance Characteristics for ESE



Fire Service Electronic Safety Equipment



- ESE Component Attributes
- A.K.A., the “Illities”
- Failure of any single attribute



Fire Service Electronic Safety Equipment



Fire Service Electronic Safety Equipment



Fire Service Electronic Safety Equipment



- ESE Intrinsic Safety
Trade-off



Fire Service Electronic Safety Equipment



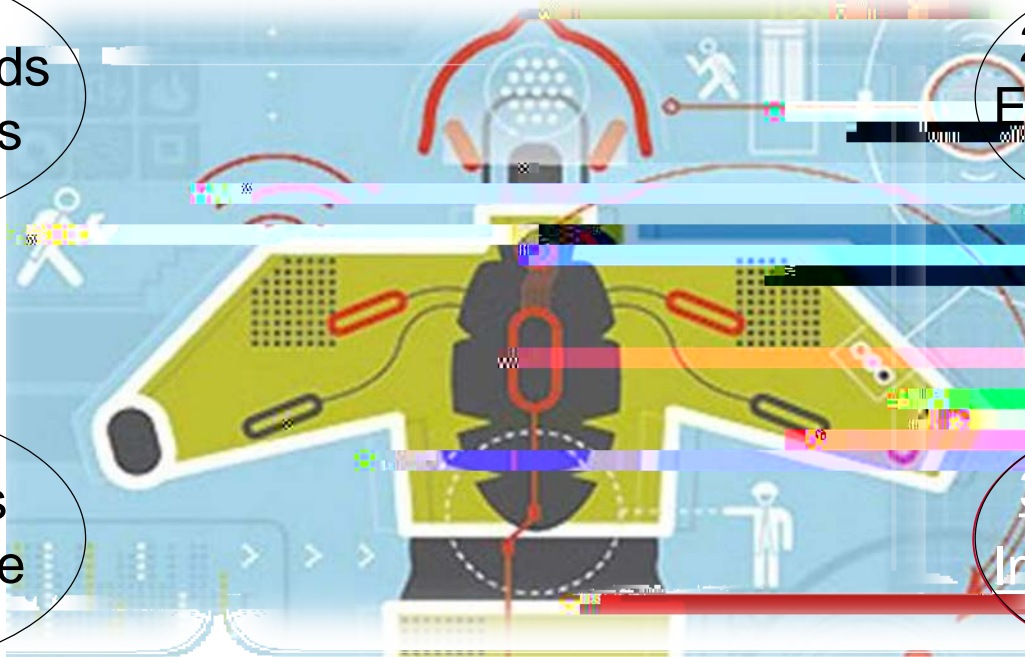
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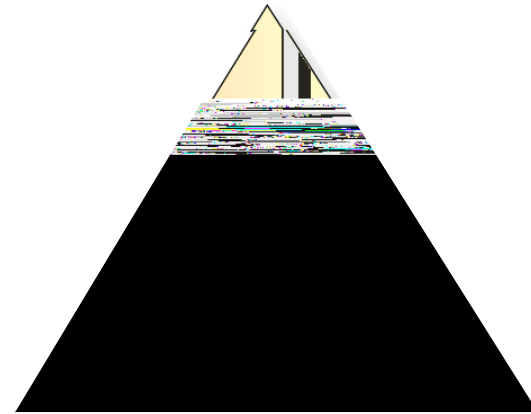
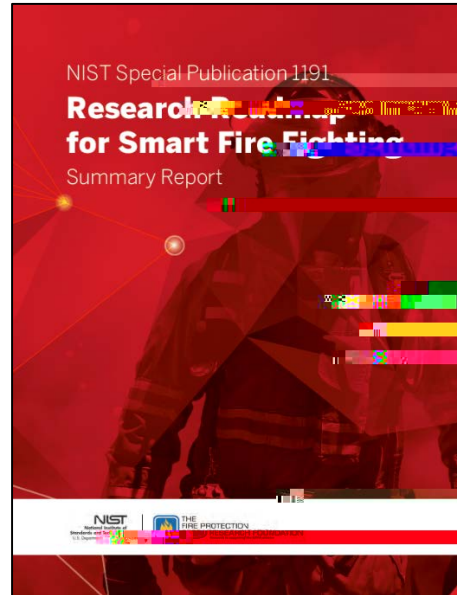
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Data, Data, In a Sea of Data

- Based on the Project Report available on the FPRF and NIST websites

www.nfpa.org/SmartFireFighting

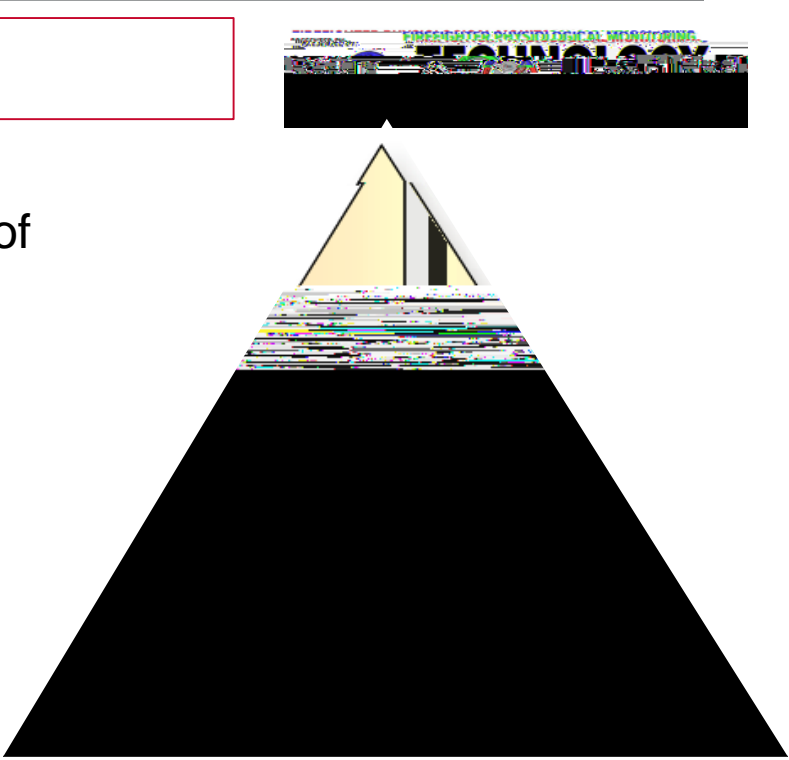


Data, Data, In a Sea of Data



- The New Era of Cyber Physical Systems
- World of Cyber Physical Systems composed of three basic areas:

- 1) Gathering of data (communication)
- 2) Processing of data (computation)
- 3) Use of data (targeted decision making)



Data, Data, In a Sea of Data



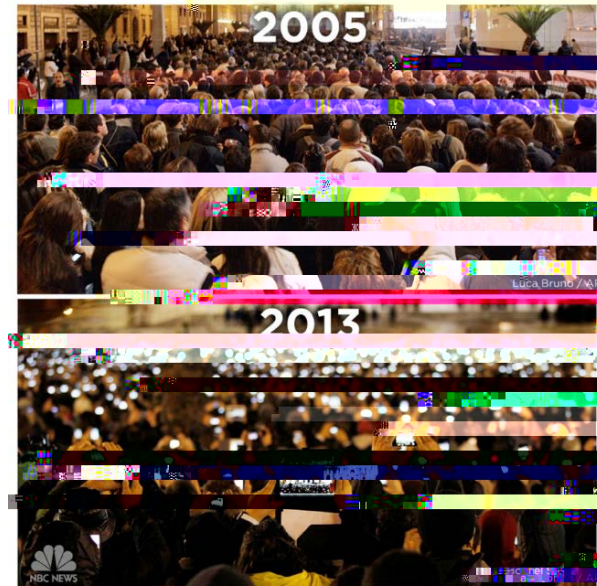
- Today's World is Increasingly Sensor Rich



Data, Data, In a Sea of Data



- Example: Smart Phones
- Purposes they serve:
 - Communication
 - Recording
 - Sensing
 - Information
 - Other
- Portal into another world...



Crowds at Papal Elections in 2005 & 2013
(Courtesy of NBC News)



Data, Data, In a Sea of Data







Data, Data, In a Sea of Data

- On the backbone of **Technology**, we harvest **Data**
- **Data** given context yields **Information**
- **Information** given meaning yields **Knowledge**
- **Knowledge** given insight yields **Wisdom**
- With **Wisdom** comes **Power** to control your destiny



Data, Data, In a Sea of Data



- On the backbone of **Technology**, we harvest **Data**
- **Data** given context yields **Information**
- **Information** yields **Knowledge**

Knowledge



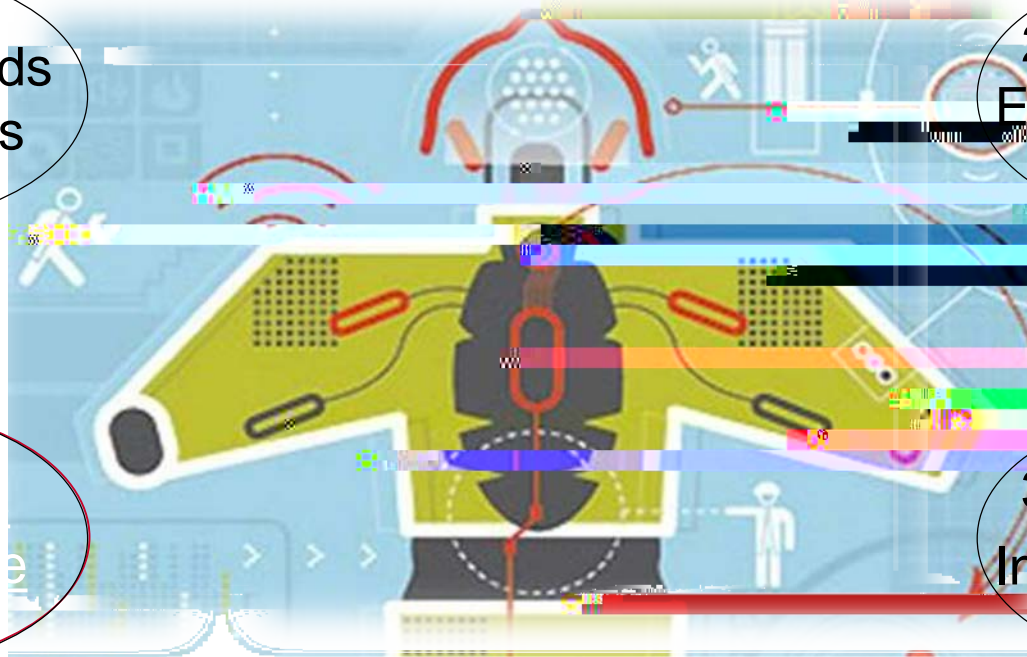
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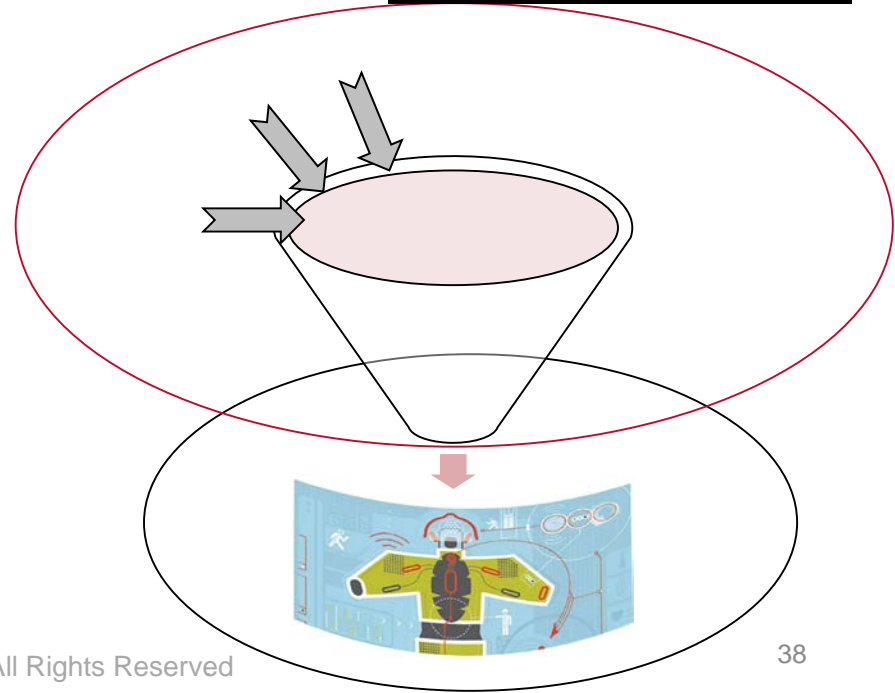
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Thoughts for the Future

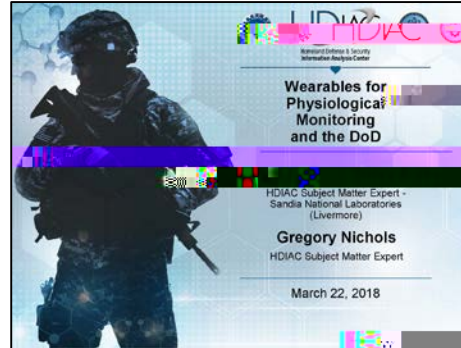


- Technological development is NOT the greatest challenge
- We are rapidly solving the technological challenges, but the greater challenges that are surfacing are legal, social, cultural, etc. (e.g., privacy of data, confidentiality, proprietary information, competition, and so on).



Thoughts for the Future

- We do not necessarily need to invent or re-invent anything, but instead work with others who can and are doing this now (e.g., military, industry, etc.)



Thoughts for the Future



- With Progress
will come
Setbacks
- Going forward,
what will be the



Thoughts for the Future



Thoughts for the Future



Thoughts for the Future



Thoughts for the Future



- Where will Wearable Technologies go next?
- As a Case Study: Consider Hearing Aids
- Fire Fighters with Hearing Impairments Need Assistance.
- Why Is This Not Being Developed for All Fire Fighters,





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Fire Protection Research Foundation

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FPRF Website: www.nfpa.org/Foundation