

Blood Pressure Schema

Build - Initial Steps

Blood Pressure

- *Systolic, diastolic*
- *Cardiodynamics*

*Informed by "use cases"
across paradigms*

Dependencies?

Extensibility intent?

"Measure twice, cut once"

Atomicity

80/20 Rule

Modeling of Time

*... and all the other schema
design principals*

Modalities:

- *Conventional blood pressure measurements*
- *Cuffless blood pressure measurements*

Related Content Possibilities?

- *Perfusion state*
- *Cardiodynamics*

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Participants for Blood Pressure Schema Writing Subgroup ?

NHLBI Workshop (March 29, 2023):

Transforming Hypertension Diagnosis and Management in the Era of AI

IEEE EMBS (May 3-5, 2023):

Second Annual Cardiovascular Health Tech Conference

Rhythm Schema

Proposed Structure - 3

*Electrical
Systoles*



Pulse



**Pulse
Dynamics**



Rhythm

Blood Pressure

- *Systolic, diastolic*
- *Cardiodynamics*

Respiratory

- *Ventilatory
dynamics*
- *Gas Exchange*
- *Anomalies*

Rhythm Schema

Proposed Structure - 3

Electrical Systoles



Pulse



Pulse Dynamics



Rhythm

Blood Pressure

Respiratory

?

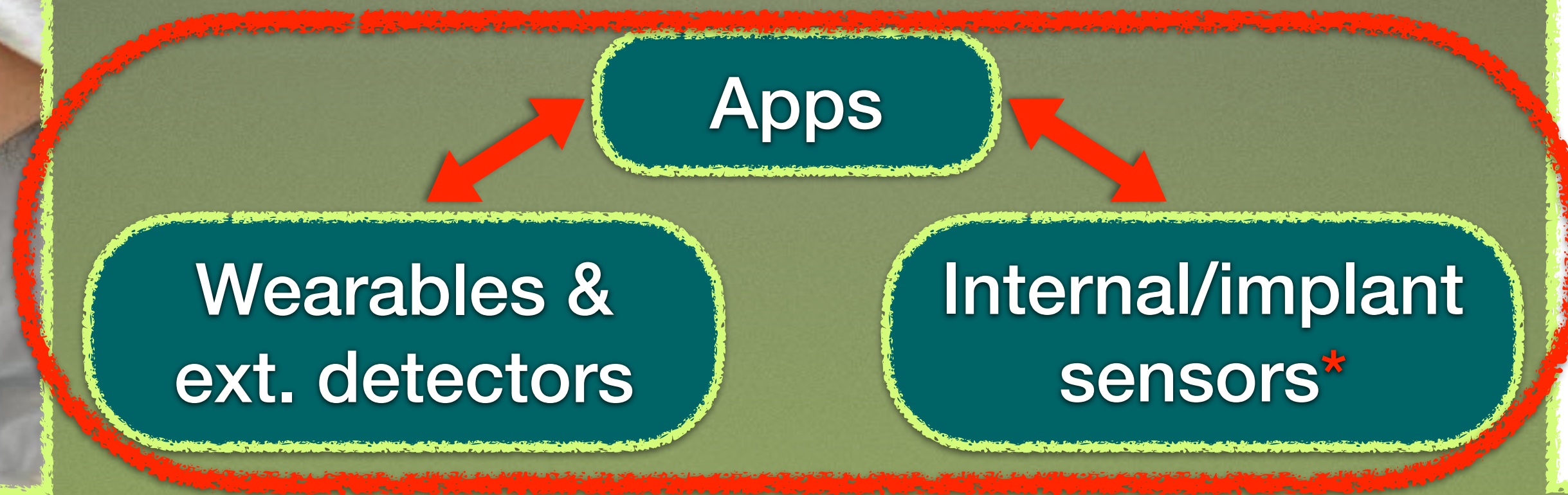
Cardiodynamics

?

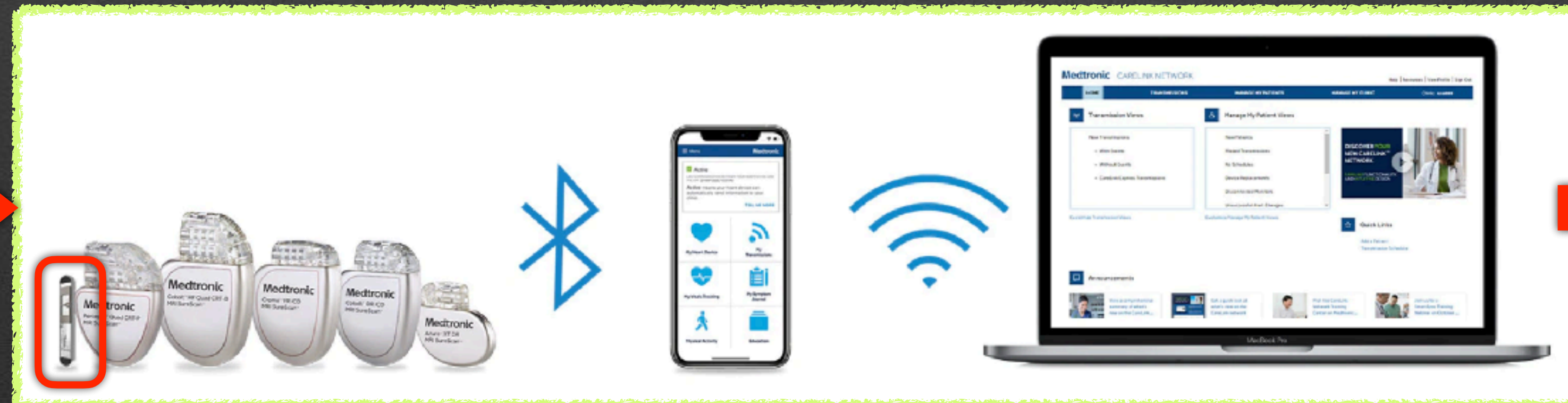
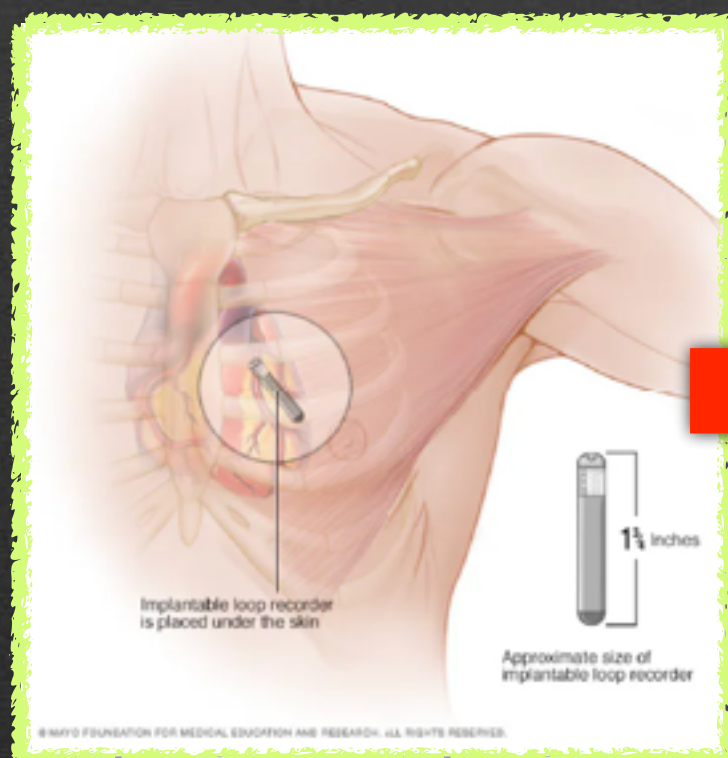
*Autonomics
Neuroendocrine*

IEEE 1752 Standard for Mobile Health Data

Expansion of Mobile Health Data
overlapping into the Digital
Biomarker Space...



Wearables ↔ *Apps* ↔ *Implantables*



PHR
EHR
AI & DL

Impactful Healthcare

Relevance

Morbidity & mortality
... WHO category of highest consequence

Cardiovascular disease #1

cerebrovascular

heart failure

dysrhythmias

Hypertension

Preventative medicine
... overall intervention of highest impact

Physical activity & mvt

CR fitness *

Health economics
... as yet unmet need :

- semantic interoperability
- contextuality

Wearables & ext. detectors

Apps

Internal/implant sensors*

Timeline / Stakeholder Engagement

- *MedTech Industry*
- *Data Industry*
- *Advocacy Organizations*
- *Professional Organizations*

IEEE EMBS Conference

(July 24-28, 2023, in Sydney)

ESC Congress

(August 25-28, 2023, in Amsterdam)

HRX Conference

(September 21-23, 2023, in Seattle)

AHA Scientific Sessions

(November 11-13, 2023, in Philadelphia)

*Initial
Draft*

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