

# Ethical challenges in biosensor research and application

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**Bioteknologinemnda**

The Norwegian Biotechnology Advisory Board

# Why should we consider ethical issues?

- Obligated to evaluate the foreseeable consequences
- A public debate might facilitate the acceptance biosensor technology
- Make the technology more socially robust
- A public debate might open new business opportunities

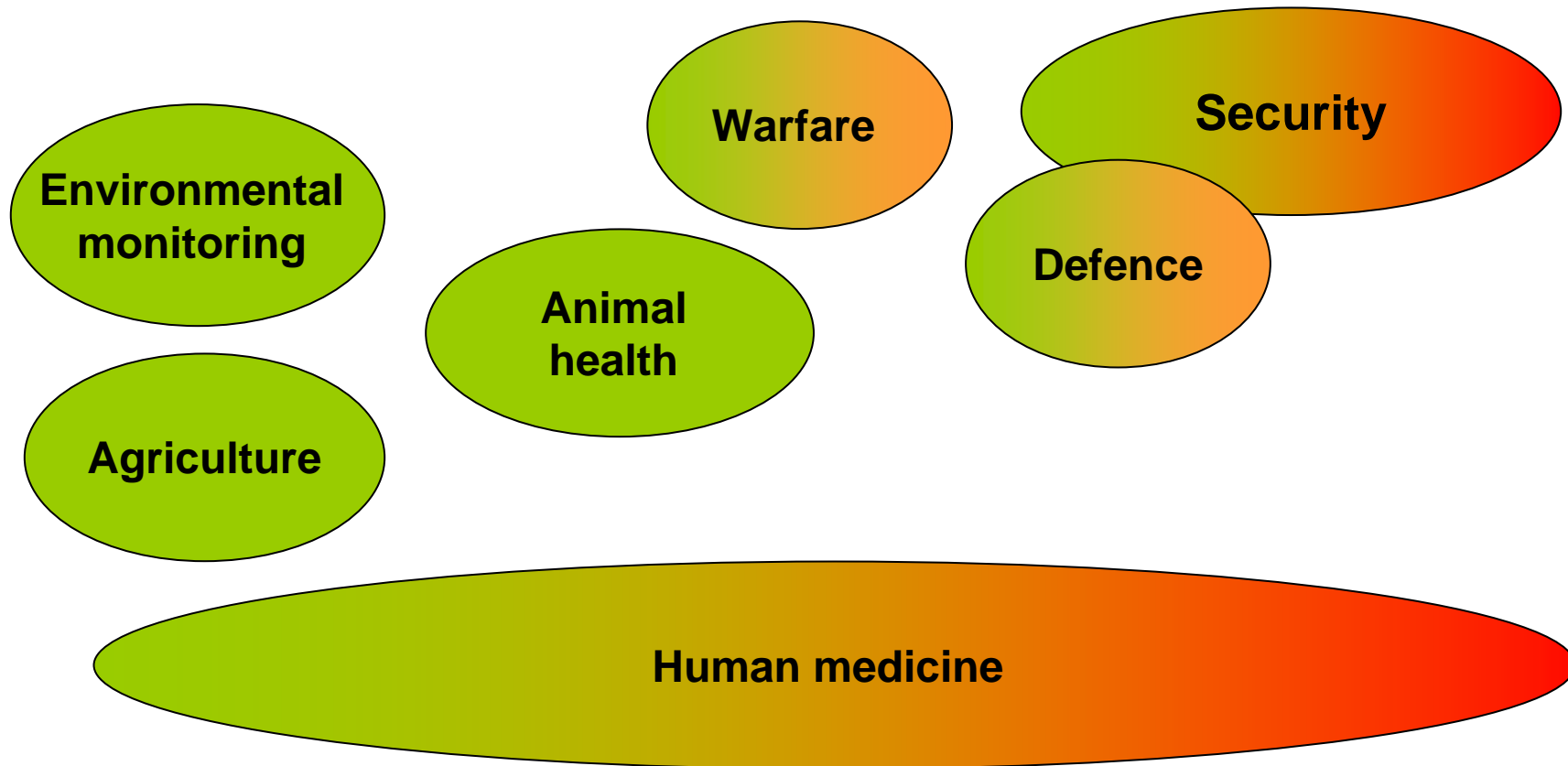
# Who should perform an ethical evaluation?

- Experts
- Laypersons
- Panels with both expert and laypersons



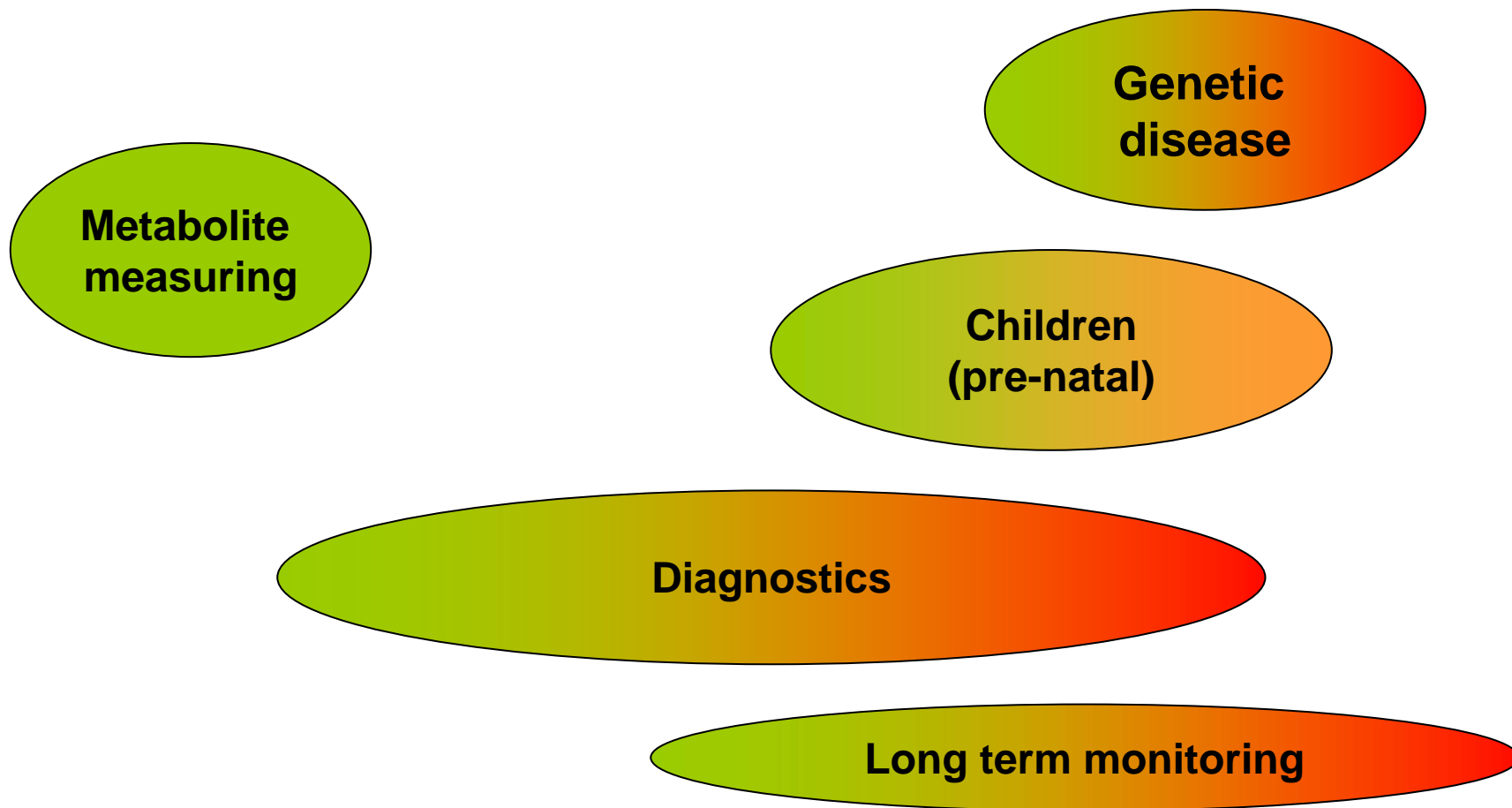
# Ethical challenges

**Few**  **Many**



# Ethical challenges within human medicine

**Few**  **Many**



# Issues useful in identifying ethically challenging areas

- Informed consent
- Autonomy
- The right to know
- The right not to know
- Results should be followed by action
- Best for the child
- Equal opportunities

# For what reasons do we develop Biosensors?

- A desire to help?
- Make money?
- Aversion against responsibility?
  - “The *test-strip-physician*”
- Risk reduction?
  - Factual risk is not necessarily paralleled by a persons experienced risk



- Avoid overselling
- Remember the  $\pi$ -rule (3,14)
- Search for answers in our time and societies
- Case-by-case strategy
- Step-by-step adoption

Thank you for the attention!