Innovation Themes iKnow

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- ICT/Media
  - Internet/Networking
    - Web 2.0 and beyond
    - Next generation interactive media
    - 3D - the future for visual multimedia and entertainment?
    - Collaboration and interoperability of networks calls for standards
    - Seamless mobility for the future internet raises questions about standards
    - Ubiquitous computing and connectivity brings opportunities for business and concerns about privacy
    - Spread of RFID could improve allows for global tracking
    - eMobility opens new opportunity for business and innovation
    - Peer-to-peer tagged media
    - Ubiquitous social networking
    - Managing the future internet
    - New laws for virtual worlds?
  - Robotics/AI/Computing
    - Robots learning human abilities
    - Swarm intelligence for robots and humans
    - Neurosciences for computing technologies
    - Evolving service-oriented software to provide long-term quality within a dynamic development area
    - Decentralised computing as new business concept?
    - Collective intelligence and crowd sourcing useful or a threat for business?
    - Artificial animals for entertainment, safety and security
    - Photonic technologies the next innovation wave?
    - Self-improving computing technologies makes complexity more manageable or uncontrollable?
    - Automated and context-aware data analysis could replace human security workers
- Science and Society
  - Trust in science might decline and effect innovativeness
  - Is there a beginning disinterest about climate change?
  - Open research and open innovation
- Economy/Production
  - New Production
    - Miniaturisation of products
    - Self-organising technologies
    - User integration and user-generated content
    - Neuro enhancement brings new business opportunities and raises ethical questions
  - Concepts and Management
    - Trust in economic system could have global economic impacts
    - Networked enterprises
    - Do we need a new financial system?
    - Seamless transport chains lead to cost savings and efficiency
- Energy/Environment
  - Energy Management
    - Growing demand of car-free city transport spurs innovations for mobility concepts.
    - Call for intelligent electricity control and distribution concepts
    - EU ban of regular light bulbs calls for innovations in energy-saving lighting?
    - Are people willing to pay more for renewable energy?
    - New agriculture for climate change?
  - Enery Production
    - Pro and contra nuclear power causes global divide
    - Biofuel for airplanes?
    - New attempts for utilise fossil fuels could impact oil prices
    - Algae for future energy production and CO2 neutralisation?
    - Future of fossil fuels and gasoline?
- Risks & Security
  - Invisible surveillance technologies
  - Data protection gets increasingly important
  - First side effects of nano-based consumer products could impact innovations
  - Biometric data for more security or privacy breaches?
  - New aircraft control concepts
  - Crypotography getting increasingly crucial as more and more data is being produced and published
- Education
  - Increasing privatisation of higher education raises questions about equity
  - Life-long-learning necessary for a future longer-lived and fast-paced society?
- Space
  - New ways to reach outer space
  - Precious resources in outer space?
- Medicine/Health
  - Therapies & Medication
    - Tissue engineering and engineered organs could revolutionise transplant medicine
    - new approaches in stem cell based therapies
    - Personalised medicine the future of health and medicine?
    - Price decline in human genome decoding could lead to new business, services and innovations
    - Functional and medical food - growing business interest but regulatory uncertainty
  - Health/Medicine & Society
    - Private sperm banks segregated by socio-cultural and ethnic factors
    - Increase in allergies
    - Personal responsibility for health
    - Digital divide in health care could challenge equal access, costs and preventative measures
    - International rise of widespread diseases
    - Human Enhancement Technologies - fostered by research, criticised by ethicists and calls for regulations
    - Healthy eating getting increasingly important for prevention and even required?
    - Self-medication on the rise - chances for business, calls for regulations?
    - Nanotechnology risks become visible and could influence business and innovation