Technology Evolution:
Brave New World of Open Innovation

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Brave new world
of technology innovation

MIRANDA

O, wonder!
How many goodly creatures are there here!
How beauteous mankind is! O brave new world,
That has such people in't!

PROSPERO

'Tis new to thee.

Shakespeare (1611), *The Tempest*, Act V, Scene 1

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Technology innovation comes in waves

"**Technology comes in successive waves. Those who have lost out on this wave can position for the next** . . . [through] **the ability to see what's coming in the next cycle, and to position oneself for it — technologically, psychologically, and cooperatively.**"

– Brian Arthur: "Increasing Returns and the New World of Business" in *Harvard Business Review* [1996]

Brian Arthur has built on these early insights – See *The Nature of Technology: What It Is and How It Evolves* [2009]

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Innovation:
User-centered design, development, deployment (UCD3) not system-centered

- It's *the user, not the system, that drives innovation*
- *User-centered versus system-centered design* (Apple vs. old IBM & Microsoft); new "usability boom" – usable interface – why Facebook overcame MySpace, (along with resistance to NewsCorp monetization-driven, system-centered, interface)
- Ben Shneiderman (*Leonardo's Laptop,* p. x): "the old computing is about what computers can do*; the new computing is about what people can do.*"
- *Focus on what people need* (Maslow's hierarchy of needs, for example: physiological; safety; love-affection-belonging; esteem; self-actualization)
- *Build technologies on people's relationships:* self; family & friends; colleagues & neighbors; citizens & markets

Panel framework:
Chesbrough's "Open Innovation" brought forward

Seminal book: Henry Chesbrough, ***Open Innovation: The New Imperative for Creating and Profiting from Technology**.* (Harvard Business School Press, 2003)

". . . a new vision of the innovation process. This vision eagerly seeks external knowledge and ideas, even as it nurtures internal ones." (Chesbrough, 2003)

European Open Innovation Strategy and Policy Group (OISPG) summary:

1. **Networking:** personal, professional, organizational
2. **Collaboration** involving partners, competitors, universities, and users
3. **Corporate Entrepreneurship**, corporate venturing, start-ups and spin-offs
4. **Proactive Intellectual Property Management:** to buy and sell intellectual property and so create markets for technology
5. **Research and Development (R&D):** for competitive advantage on the marketplace

"We would like strongly to communicate a more modern view on open innovation. We need to go far beyond, towards crowdsourcing, co-creativity and collaborative open innovation ecosystems." (Salmelin, 2010)

Thank you and next presentation

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