

Tekes Scenarios 2010

An Introduction

Agenda

- The process
- Four scenarios

The Process

- The project used a specially configured five-person think-tank to cover a broad area in a very short time, between November 2009- January 2010.
- The think-tank participants were internationally known scenario creators, known for their capability to create and implement disruptive visions.
- Instead of consensus, the project aimed at “strategic dissonance.”
- The objective was to bring into Tekes strategy process some new themes and points of view that stretch current strategic thinking towards new interesting and relevant directions.
- Four scenario narratives were developed. These provide material for workshops and discussions that formulate implications for the Tekes strategy process.
- In addition, the scenarios will be used with other stakeholders to facilitate discussion on the future of the Finnish knowledge society.

Welfare State in the Knowledge Age

- Scenario: “The Return of the State”
 - Plays forward the discussion on the future of the welfare state
 - Uses South Korea as a reference model. What can we learn from it, if anything?
 - What, exactly, was the idea of the Nordic model, and why was it lost?
 - Could Finland become a leader in the “next-generation” knowledge society?
 - What is the role and mission of the nation state in the emerging world?
 - What could be the new key “policy objectives” that underlie innovation and technology policy in the future?

New Forms of Sociality and Identity

- Scenario: “The Death of Dying”
 - Assumes that the current human trials with sirtuin-activating compounds (STACs) are successful, leading to expectations of step-wise increase in lifespan (> 10 years) in the next 15 years.
 - This leads to major economic, ethical, and social challenges.
 - In the scenario narrative, “Petra” is trying to figure out what to do with her various identities that should be transferred to a new social computing app.
 - The key assumption is that identity construction is the main driver in the future.
 - The scenario highlights the point that “individuality” is something that exists only in a social context; new forms of sociality and individuality are emerging, reshaping the key institutions of society
 - The scenario suggests that future social change and revolutions will be driven by people over 60.
 - The scenario consist of a “setup” and a first-person scenario narrative. These are loosely coupled to keep the scenario logic open.
 - What will happen to identity, community and sociality in a world where digital traces create “full transparency”?

“The Big Gap” in ICT

- Scenario: “The End of Moore”
 - This is the most “technical” of the scenarios.
 - It assumes that in the next years we are approaching the biggest discontinuity in the history of integrated circuits
 - Since the early 1960's the IC industry has been developing by shrinking transistors at almost exponential rate, at the same time keeping the manufacturing cost per chip area constant
 - The miniaturization has been accompanied by annual cost declines of 25 to 63 percent for half-a-century. We have seen nothing similar before in the human history.
 - The IC industry, the rest of the 1.2 trillion electronics industry, and now the rest of economy and society have become dependent on this extremely fast incremental innovation
 - Now the smallest features on ICs are about five atomic layers.
 - The dynamics of innovation at the core of the digital age is about to change, opening radically new opportunities for future ICTs
 - Alternative technologies exist in laboratories. Experts expect that they could become industrially relevant after some decades. Physical and economic boundaries are already being hit with existing IC technologies. This is “the Big Gap.”
 - At the same time, a global information infrastructure, based on distributed compute clouds, is emerging, allowing businesses to scale up their services to millions of users overnight

The Big Gap

- In the narrative, “Matti” is creating a new medical imaging app “MRI@home” using peer-to-peer desktop supercomputing and re-configurable processor architectures, rolling out the service using Google's datacenter in Hamina
- Questions arise: Do we need new national innovation infrastructures? Where is the new ICT knowledge created? Does Finland have some special opportunities? Who is the “corporation” of the future, and the “subject” of policy?

The New Dynamics of Socio-Economic Evolution

- Scenario: “The New Paradigm”
 - Assumes that a new mental framework emerges in the “economy of abundance.”
 - The institutions of the past are being replaced by new ones.
 - The old systems do not collapse; they simply become less and less relevant in the everyday life.
 - Production is increasingly done by “swirling clouds of production.”
 - Alternative economies exist in parallel.
 - Value creation is less about extracting it from land and manual labor; instead, value is created through value creation. Instead of the *environment*, value comes from the *invironment*.
 - Social and knowledge capital become the dominant forms of capital.
 - Collective choices are made outside the old institutions.
- In the scenario, “Moo” is working on WikiWorlds, creating augmentations for a new public building in Töölönlahti.

Two-Part Scenarios

- “The setup” provides a context
- “The scenario narrative” is a person-centric snapshot of an individual actor
 - We use individuals and avoid “institutional actors.” The assumption is that institutions are changing.
- An exception to this is the scenario “The Return of the State”
 - It only provides the setup, leading to the question “what should the future Finnish model look like.”
 - This leaves up to the participants to work on the topic.
 - We believe that this “future Finnish model” combines elements of all the other scenarios.
- We also break a number of common scenario conventions
 - The scenarios overlap; they describe “a big elephant” from different thematic horizons and points of view.
 - The time perspective is fluid; we assume that the future is already there, although not always clearly visible.

How to Use Them

- The scenarios are there to help you think and discuss about important developments.
- They are not “Tekes-specific.” The implications for Tekes strategy will be worked out in separate workshops.
 - An exception to this “The End of Moore,” which already has some links to technology and research policy.
- The discussion is expected to lead to action.
- We talk about the “future” but the underlying question is what needs to be done now.

Where the New Comes From?

- We also want to reframe and reformulate dominant policy discourses.
 - The things that are “dominant” today are dominant because they worked best.
 - In other words, “dominant” policy discourses and concepts are optimized for what used to be. Within these discourses, the new is always peripheral, fuzzy, exceptional, and “doesn't fit” what we already know.
 - As an example, classical economic theory was based on a central assumption that resources are scarce and there are diminishing returns on effort. The economic machinery has great problems in dealing with situations where scarcity does not dominate. In developed countries, such situations are becoming increasingly common.
 - National accounts provide another example. They are critically important for connecting and linking the diverse social discourses about the state of the world. That's why everyone talks about GDP and growth. Yet, it is well understood today that GDP works best in a world of mass-production, where value is dominantly created from extracting it from the nature. The link between GDP and growth is unclear in the knowledge-based service economy, and the link between growth and progress is broken. Here lies a great opportunity.

The Next Finnish Model

- We are in the midst of a profound social and socio-economic transformation that creatively destructs old models of the world. In the near future, our understanding of such basic concepts as “the nation state,” “the society,” “community,” and “the economy” will be different from what they were in the industrial age.
- Your kids will have very different ideas of this concepts.
- Already today, the everyday reality and the institutions of the industrial age society don't match well.
- “Leadership” in this new world is not in any simple sense about “global competitiveness,” or “technology leadership.” It is primarily about understanding what progress means in the knowledge age.
- This understanding will lead to new policy approaches and objectives. This is the domain where true leadership will emerge, defining what we actually tried to say when we talked about the emerging knowledge society.
- In these scenarios, we try to open the discussion on these rather fundamental changes.
- The future could be very different. How would we want it to be? What would be worth the effort?

Think and Act
Both are Needed

This Is Called Learning