Digital Transformation: Driving Innovation

Markus Larsson, PARC, VP Global Business Operations
The Path to Digital Transformation

The World is Changing

Creating an Innovation Culture

Case Study

JR-EAST
The World is Changing
Digital Transformation: From Computing…
Newspaper advertising is down 70% in one decade
...and the physical world
Creating an Innovation Culture
PARC Legacy: A Storied History of Inventing the Future

1970 Xerox PARC
1973 PC - Alto
1975 WYSIWYG GUI
1986 Multi-beam lasers
1997 Blue laser
2001 Biomedical systems
2012 Energy
2014 Content-centric networking

1971 Laser printing
1973 Ethernet
1980 Programming languages
1988 Ubiquitous computing
2000 Electronic reusable paper
2002 PARC, a Xerox Company
2013 Printed, flexible electronics
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Innovation Expertise Across Industry

Making Things

Connect

MakeNet

Make

Design

Make

Design

Energy

Smart Devices

Human Centered Big Data

Smart Infrastructure
Converting Innovation into Impact

Human Behavior and Context

Technology Expertise and Know-How

New Models for Business

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Innovation Process

1. Explore & discover (research)
2. Ideate (create concept)
3. Prototype, design & iterate (evaluation, validation)
4. Develop & Iterate (partner)
5. Go to market (commercialize)
Engage

Structured workshop for business / technology leaders to explore strategic growth challenge and identify starting points for low-risk exploration

Developed in response to increased flow of IoT / “smart everything” partnering opportunities

Typical outcomes:
- A clear, distinctive and explicit growth ambition
- A roadmap of unique solutions to realize it, with starting point
Driving Change: Reducing Risk

Direction
Framed and prioritized growth ambition

Opportunities
Portfolio of business experiments and ventures

Capability
Innovation muscle built in client organization
Case Study
Case Study: Improving Uptime and Safety at a Lower Cost: Condition-Based Maintenance

“Our growth has decreased due to population decrease, so we want to reduce spending on maintenance activities to help improve the bottom line.” Atsushi Yokoyama, Director General, R&D Center, JR-East Group

“Help Me Soon - I’m going to break in the next 2 weeks...”
Case Study: Combining User Needs with Technology

Detailed physics-based models

Limited data sets, machine learning

Effective CBM solution for all stakeholders
We examined multiple organizations to determine a futuristic approach to maintenance, and decided to evaluate PARC’s CBM. We have been pleased with the pilot results. We are now in discussions around operationalizing the developed CBM solutions with PARC and productizing NRI for train doors and rail maintenance operations.
THANK YOU
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- Printed Electronics
- Optoelectronics
- Cleantech & Energy
- Digital Design & Manufacturing
- Contextual Intelligence
- Big Data Analytics
- Video & Image Analytics
- Content-Centric Networking
- Security & Privacy
- Innovation Services
TALENT
200+ physical, computer, social science and business experts from 35 countries; 80% doctoral degrees

IMPACT
30+ companies; created or transformed numerous markets

IP PORTFOLIO
2500+ patents (~150 per year), 4000 papers, 100 books

TRACK RECORD
40+ years of pioneering technological change
10 years as an independent subsidiary of Xerox
>50% of our revenues come from outside of Xerox