OUT OF THE LAB AND INTO THE BUSINESS

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OUT OF THE LAB AND INTO THE BUSINESS

INNOVATION - Big Ideas and a Cultural Leap

- Expect Change
- Innovation Philosophy
- The Innovation Lab(s)
- Cultural Transformation
- Lessons Learned & Measuring Success
Expect continued and unprecedented pace of change

Client behaviors and expectations

Accelerating technological developments

The rise of disruptors

Mounting industry requirements
PILLAR TWO: LEADING CAPABILITIES

FLEXIBLE SOLUTIONS TO ACCELERATE MOBILE, SOCIAL & ANALYTICS UPGRADES

ACCELERATED DELIVERY

UPGRADES

Mobile
Social
Analytics

BENEFITS

Faster Releases
New Tools
Advanced Reporting & Analysis

Agile Methodology
Open Source Tools
Vended Solutions
Cloud-based Computing
INNOVATION AT NORTHERN TRUST: A PEOPLE-FIRST APPROACH

A systematic, sustainable capacity to explore, test and commercialize new ideas that create value

Our innovation labs are business sponsored, supported by a strong leadership team and multiple, dedicated Project Teams
ENABLING INNOVATION ACROSS THREE HORIZONS

- **Game Changers**
- **New business offerings supporting entrepreneurs**
- **Process & experience improvement**
HORIZON 2: EVOLUTIONARY

BLOCKCHAIN

A ‘Game Changer’ for Private Equity
✓ Recognized as an industry opportunity
✓ Collaborated extensively across investors, managers, regulators, tech providers
✓ Launched an ‘industry first’ PE ecosystem
✓ Marketing, issuing, trading, servicing private equity funds on a transparent platform
✓ Determining ‘where next’ for blockchain

Multiple Points of Innovation
✓ Addresses infrastructure challenges
✓ Reduces administrative pain points
✓ Removes barriers for investors and general partners, such as duplicative processes
✓ Promotes better connectivity and interaction between all market participants
✓ Provides a fully transparent, secure offering
✓ Industry recognition as a leader and innovator

Engagement and Investment
• Member of the R3 consortium
• Developing groundbreaking commercial applications of distributed ledger technology in financial services
• Bringing together global expertise across electronic financial markets, cryptography and digital currencies

FINANCIAL TIMES
Northern Trust and IBM Pioneer Use of Blockchain Technology to Help Transform Private Equity Administration
2017

REUTERS
Northern Trust uses blockchain for private equity record-keeping
2017

THE WALL STREET JOURNAL
Northern Trust Deploys Blockchain for Private Equity
2017
Technological evolution and disruption will only accelerate.

Be Aware.

Take Action.

Get Prepared.
The expected time horizon is condensing with the pace of change.
NORTHERN TRUST INNOVATION LABS

- CPX (Client/Partner Exchange) Lab
- Pivotal Labs (Agile)
- Global Fund Accounting Innovation Lab
CPX (CLIENT/PARTNER EXCHANGE) LAB

Collaborate with business units to identify and design differentiated experiences that result in profitable growth and engaged employees.

• Approach
  • 20-person team of interdisciplinary designers and researchers
  • Deep professional experience in digital, product and human-centered design
  • Open and collaborative workspace where designers come together to share ideas

Taught 25 human centered design classes with 500 attendees in 2017

Collected 10,000+ pieces of client feedback since inception

Hosted 250+ client and prospect tours of the CPX Studio in 2017

From incremental to brave: incorporate design into the incubation of new offers and business to bring our own vision to the market.
NORTHERN TRUST INNOVATION LAB

INSIGHTS

Sourced from clients

And employees

INNOVATION LAB

Rooted in human-centered design principles

SOLUTIONS

Personalized

Intuitive

Flexible

Greater ease, speed & efficiency
PIVOTAL LABS (AGILE)

Developing **higher quality** software through **closer collaboration** between the business and technology.

**• Approach**

• Partner with Pivotal Labs
• Bring together business knowledge, software and infrastructure engineering into one small, powerful team
• Utilize shortened feedback loops, “devops” and agile methodologies

**• Successes**

• Client Digital and Intraday Valuations
• 100% testing automation
• 100% cloud enabled

*Learn from mistakes* rather than *punishing failure*.

*Start small and grow* rather than *define and build the whole*. 
FUND ACCOUNTING GLOBAL INNOVATION LAB

Achieve 2X productivity while delivering accurate and timely net asset values and achieving equal or better client service experience.

• **Approach: Redefine how we deliver fund accounting.**
  - Rethink and optimize business process and operating model – eliminate unconscious bias and challenge boundaries
  - Employ an Agile team that includes an embedded fund accounting team striking NAVs daily – lab team is dedicated and co-located
  - Integrate new technologies like RPA to automate repetitive, predictable tasks
  - Increase system integration
  - Remove roadblocks and improve the fund accountant work experience

• **Successes**
  - Increased productivity by over 100% in 10 months
  - Automated over 250k reconciliations and 200k task validations annually
  - Improved average NAV delivery time by 25 minutes
  - *Increased employee engagement and enhanced team dynamics and accountability*
LESSONS LEARNED

KEYS TO SUCCESS

• Tight link to strategy
• Sponsorship at the top
• Focus on building
• Focus on inclusivity
• Focus on people and talent
• Cultural transformation

DO BETTERS

• Measure progress rigorously
• Surface patterns across the enterprise
• Embed design and research into development processes
THE OLD DOG’S NEW TRICKS:
CULTURAL TRANSFORMATION IS CRITICAL

• Embracing and managing a multi-generational workforce
• Avoiding the perils of “Titleism and Ageism”
• Embedding Agile thinking and practices into the enterprise (not just project teams)
• Acquiring and developing new skills and expertise
• Reassessing the soft and hard skills required for the work
• Reevaluating the motivational and compensation mechanisms that drive behavior
• Re-thinking the organization of work – and the work space
WHY INNOVATION LABS FAIL

1. **It really isn’t an innovation lab**
   - *Don’t confuse cool ideas with profitable ideas*

2. **Lack of strategic alignment**
   - *Enable corporate strategy not pet projects*

3. **Lack of focus**
   - *Yes, there are actually bad ideas….*

4. **“Innovation Theatre”**
   - *Ping pong tables and cool jargon don’t equal “innovation”*

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**Lack of commercial delivery (revenue & profit)**
MEASURING SUCCESS

A strategy designed to mutually drive client and Northern Trust outperformance.

CLIENT BENEFITS

- Enhanced data quality
- Resilient and stable environment
- Improved speed to market
- Rapid client solutions
- Maximum user flexibility

NORTHERN TRUST BENEFITS

- Efficient resource deployment
- Increased productivity
- Practical efficiency
- Enhanced digital experience
- Differentiating, contemporary technology

Collaboration and co-creation

Enabling data-driven decision making

Strategic Technology Platform | Innovation Lab | Silicon Valley | Digital Transformation
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