

Lesson 9: InsurTech

Module 1: FinTech Fundamentals

Digital Finance

Insurance Industry Challenges

Legacy Problems

- Manual underwriting
- Slow claims processing
- High operating costs (25-30%)
- Customer experience gaps

Traditional Insurance: Key Pain Points

Complex Products

- * Difficult to understand
- * Hidden exclusions
- * Over-insurance common

Slow Processes

- * Lengthy applications
- * Manual underwriting
- * Paper-heavy claims

Poor Experience

- * Infrequent contact
- * Adversarial claims
- * Limited transparency

High Costs

- * Agent commissions (15-20%)
- * Legacy IT systems
- * Fraud losses (5-10%)

Risk Assessment

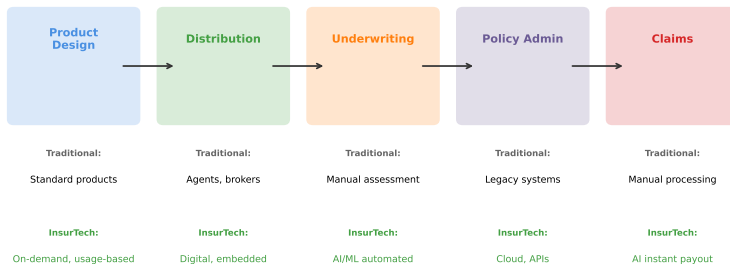
- * Limited data points
- * Static pricing
- * Cross-subsidization

Distribution

- * Agent dependency
- * Limited digital reach
- * Channel conflicts

[INDUSTRY ANALYSIS]

InsurTech Disruption Across the Value Chain



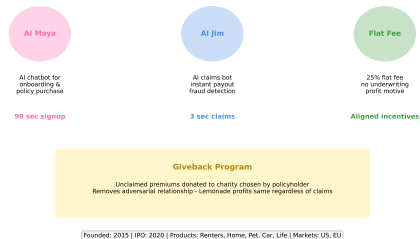
InsurTech Impact: 40% cost reduction potential, 70% faster claims, 3x customer satisfaction

Source: McKinsey Insurance Practice (2024)

AI-First Insurer

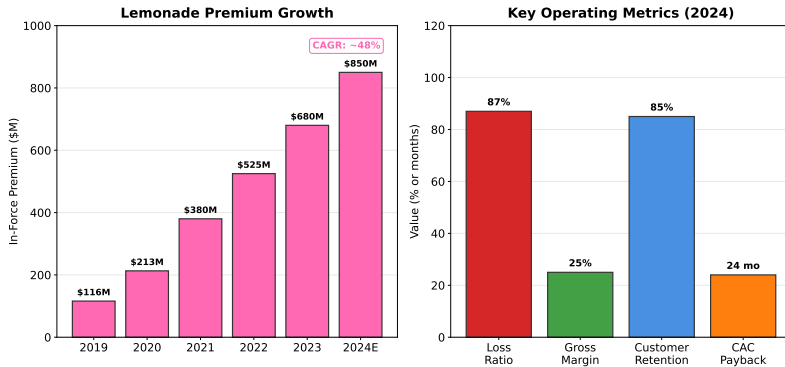
- Founded: 2015
- 90 second policy purchase
- 3 minute claims (simple)
- Behavioral economics model

Lemonade: AI-First Insurance Model



Source: Lemonade company filings (2024)

Lemonade Business Model



Source: Lemonade SEC filings, Q3 2024 earnings | Note: Not yet profitable, targeting 2025-2026

Behavioral Innovation

- Flat 25% fee
- Remaining to causes
- Reduces fraud incentive
- Community alignment

Lemonade's Giveback Model



Why It Works:

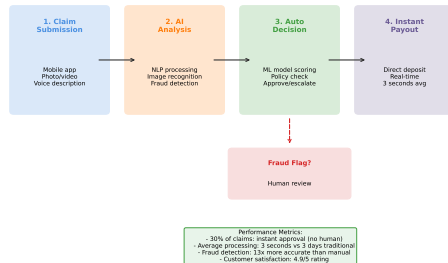
1. Removes conflict of interest - Lemonade earns same fee regardless of claims
2. Reduces fraud - customers less likely to defraud their chosen charity
3. Creates community - policyholders grouped by charity preference
4. Social impact - \$10M+ donated since 2017

Source: Lemonade Giveback Report (2024)

AI Jim

- Computer vision analysis
- Anti-fraud detection
- Instant approval (40%)
- Human escalation

AI-Powered Claims Processing



Source: Lemonade, Tractable AI case studies (2024)

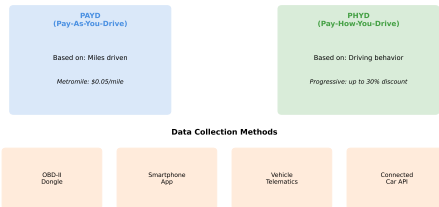
Usage-Based Insurance (UBI)

Telematics Revolution

- Pay-per-mile models
- Driving behavior tracking
- 30-50% savings potential
- IoT sensor integration

Usage-Based Insurance (UBI)

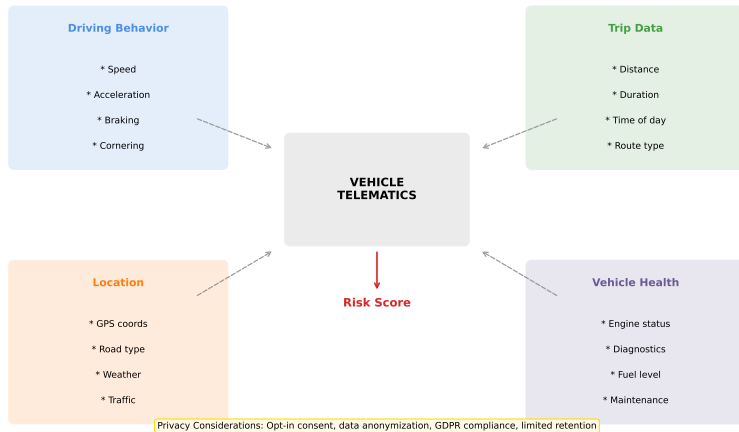
Pay-How-You-Drive / Pay-As-You-Drive



UBI Market: \$35B (2024) | Growth: 25% CAGR | Adoption: 20% of US auto policies by 2025

Source: PwC Consulting, Allied Market Research (2024)

Telematics: Data Points for Risk Assessment



Source: LexisNexis Risk Solutions, Verisk Analytics (2024)

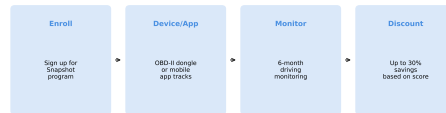
Progressive Snapshot Program

UBI Pioneer

- 14M enrolled drivers
- Average 16% discount
- Hard braking penalty
- Mileage-based pricing

Progressive Snapshot: UBI Pioneer

Launched 2011 - First major US telematics program



Scoring Factors:

- | | |
|----------------------|---------------|
| * Hard Braking | High Impact |
| * High-Speed Driving | High Impact |
| * Night Driving | Medium Impact |
| * Miles Driven | Medium Impact |

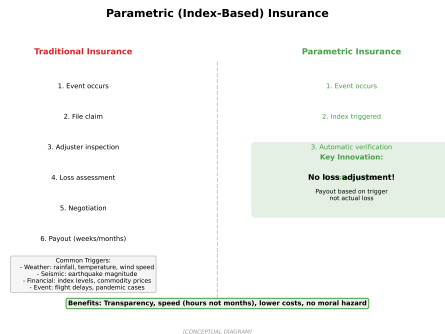
Program Results (2024):

- 35M+ drivers enrolled since launch
- Average discount: 15%
- Best drivers save: up to 30%
- 25% fewer accidents among participants
- \$1B+ in customer savings

Source: Progressive Insurance annual reports, company website (2024)

Index-Based Payouts

- Predefined trigger events
- No claims adjuster needed
- Weather derivatives
- Instant payout automation



Parametric Insurance: Real-World Examples

Caribbean Hurricane

Trigger: Cat 4+ hurricane

Payout: \$50-200M

CCRIF (Caribbean)

Crop Weather

Trigger: Rainfall < threshold

Payout: Per-acre coverage

ACRE Africa

Earthquake

Trigger: Magnitude > 6.0

Payout: Tiered by severity

Global Parametrics

Flight Delay

Trigger: Delay > 2 hours

Payout: \$50-500 instant

Revolut, Blink

Solar Radiation

Trigger: Solar output drop

Payout: Revenue protection

kWh Analytics

Pandemic

Trigger: WHO declaration

Payout: Business interruption

World Bank PEF

Parametric Market: \$15B+ (2024) | Growth: 15% CAGR | Climate risk driving adoption

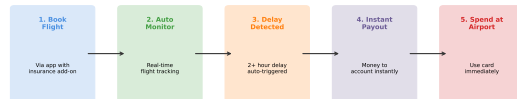
Source: Swiss Re, Munich Re, Aon parametric reports (2024)

Automated Payout

- Delay > 2 hours = trigger
- Flight data API integration
- Instant payment via app
- No claim form required

Automated Flight Delay Insurance

Example: Revolut Travel Insurance



Key Features:

- No claim filing required
- Payout within minutes of delay
- Tiered payouts: 2hr=\$50, 4hr=\$100, 6hr+=\$200
- Data from FlightAware/Cruxim APIs
- Blockchain smart contracts (some providers)

Providers:

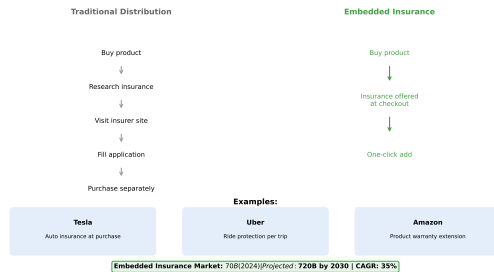
- Revolut
- Blink Parametric
- AXA (Itzy - discontinued)
- Etherisc (Blockchain)
- Kalibri (API)

Source: Revolut, Blink Parametric product documentation (2024)

Point-of-Sale Integration

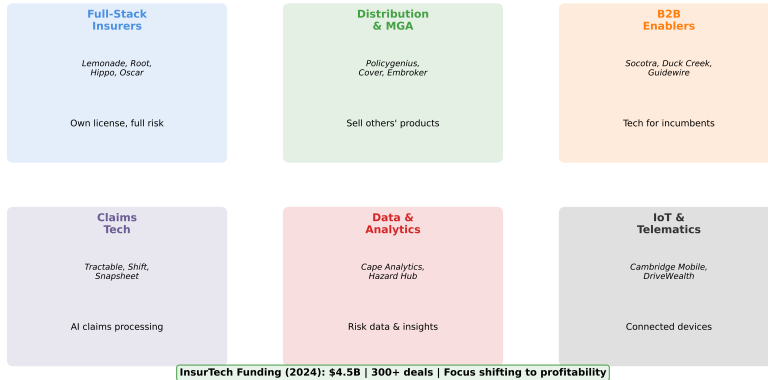
- E-commerce checkout
- Travel booking sites
- Ride-sharing apps
- Device purchases

Embedded Insurance: Insurance at Point of Sale



Source: InsTech London, Simon-Kucher embedded insurance report (2024)

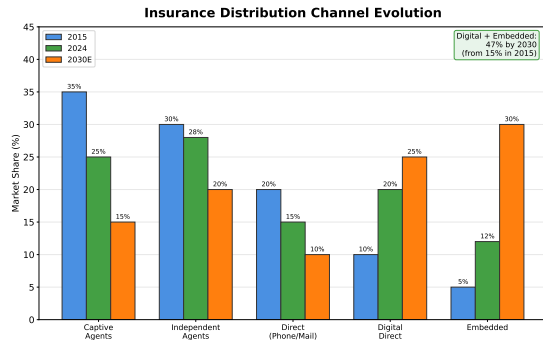
InsurTech Market Segments



Source: CB Insights, Gallagher Re InsurTech report (2024)

New Channels

- Digital brokers (PolicyGenius)
- Aggregators (Compare.com)
- White-label platforms
- API-first models



Source: McKinsey Insurance Distribution (2024) (PROJECTIONS)

Compliance Burden

- State-by-state licensing
- Capital requirements
- Rate approval process
- Data privacy constraints

InsurTech Regulatory Landscape



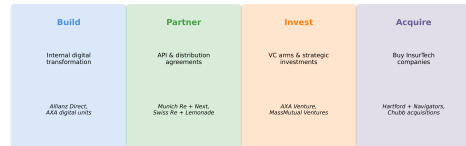
InsurTech Sandboxes: UK FCA (first), Singapore MAS, Arizona, NAIC Innovation Track

Source: NAIC, EIOPA, Lloyd's regulatory guidance (2024)

Digital Transformation

- Partnerships with startups
- In-house innovation labs
- Acquisitions (MetLife → Versicherix)
- API platform development

Incumbent Response to InsurTech Disruption



Incumbent Digital Investment (2024):

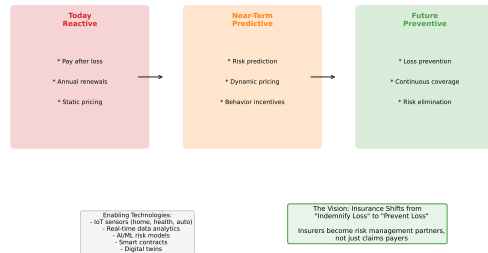
- Global insurers spent \$158+ on digital transformation
- 70% have dedicated innovation labs
- 50%+ use AI in claims processing
- Average IT spend: 3-5% of premiums

Source: Deloitte Insurance Outlook, Accenture Insurance Technology (2024)

From Reactive to Proactive

- IoT risk prevention
- Health wearable integration
- Smart home monitoring
- Dynamic pricing

The Future: Predictive & Preventive Insurance



[FORWARD-LOOKING ANALYSIS]

- **Lemonade:** Behavioral economics + AI reduces costs to 25%
- **UBI:** Telematics enables 30-50% personalized discounts
- **Parametric:** Automated triggers eliminate claims process
- **Embedded:** Point-of-sale integration captures moments
- **Future:** Predictive prevention over reactive coverage