

Lesson 9: InsurTech

Module 1: FinTech Fundamentals

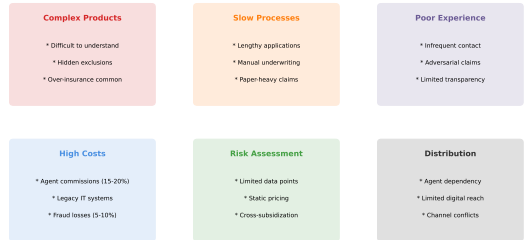
Digital Finance

Insurance Industry Challenges

Legacy Problems

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

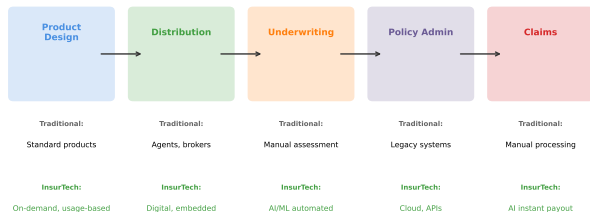
Traditional Insurance: Key Pain Points



[INDUSTRY ANALYSIS]

Insurance legacy systems struggle with 25-30% operating costs—InsurTech disrupts every step.

InsurTech Disruption Across the Value Chain



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

Source: McKinsey Insurance Practice (2024)

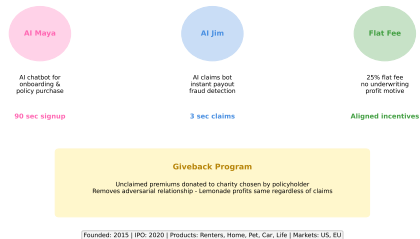
InsurTech companies target specific pain points—from underwriting to claims to distribution.

Lemonade Case Study

AI-First Insurer

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

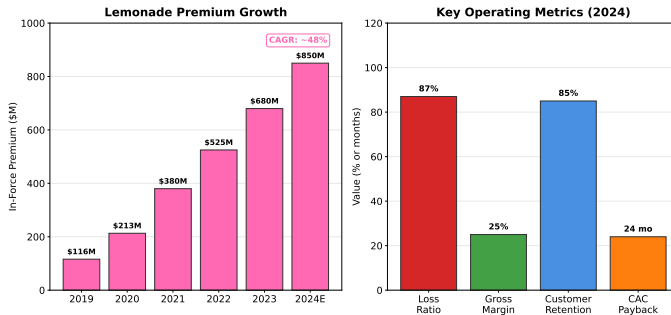
Lemonade: AI-First Insurance Model



Source: Lemonade company filings (2024)

Lemonade offers 90-second policy purchase and 3-minute claims—AI-first from day one.

Lemonade Business Model



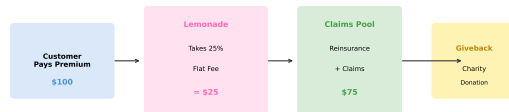
Source: Lemonade SEC filings, Q3 2024 earnings | Note: Not yet profitable, targeting 2025-2026

Flat 25% fee model with Giveback charity donation—reduces fraud incentive through alignment.

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

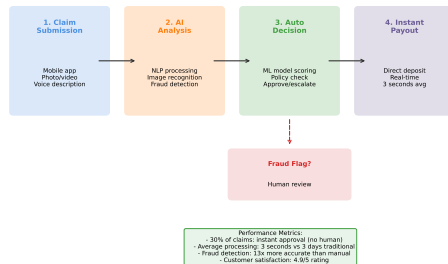
Source: Lemonade Giveback Report (2024)

Behavioral economics: customers donate unclaimed premiums to charity—reducing fraudulent claims.

AI Jim

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

AI-Powered Claims Processing



Source: Lemonade, Tractable AI case studies (2024)

AI Jim approves 40% of claims instantly—computer vision and anti-fraud detection automate the rest.

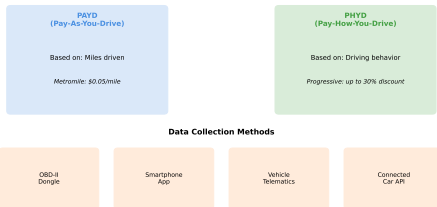
Usage-Based Insurance (UBI)

Telematics Revolution

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

Usage-Based Insurance (UBI)

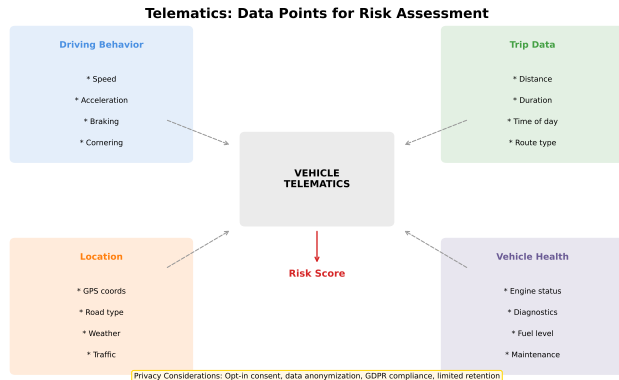
Pay-How-You-Drive / Pay-As-You-Drive



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

Source: Ptolemus Consulting, Allied Market Research (2024)

Telematics-based pricing offers 30-50% savings for safe drivers—IoT sensors track behavior.



Source: LexisNexis Risk Solutions, Verisk Analytics (2024)

Hard braking, acceleration, speed, and mileage data determine personalized premiums.

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 |

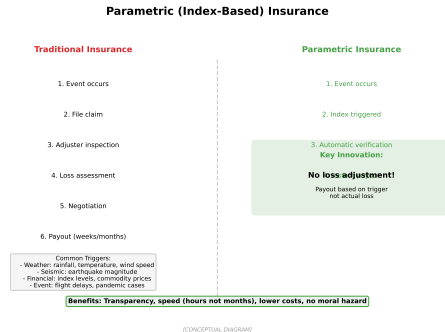
Program Results (2024):
- 35M+ drivers enrolled since launch
- Average discount: 15%
- Best drivers save: up to 30%
- 25% fewer accidents among participants
- \$1B+ in customer savings

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

Progressive enrolled 14M drivers—average 16% discount through behavioral monitoring.

Index-Based Payouts

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



Index-based triggers eliminate claims adjusters—predefined events trigger instant payouts.

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)

Weather, earthquakes, flight delays, and crop yields all enable parametric products.

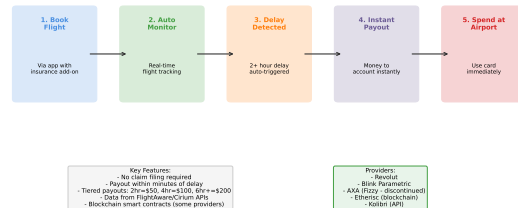
Flight Delay Insurance

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



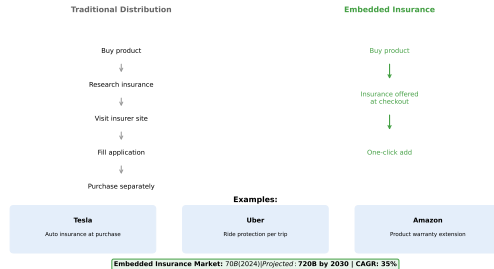
Source: Revolut, Blink Parametric product documentation (2024)

2+ hour flight delay triggers automatic payout—no claim form, instant API-based processing.

Point-of-Sale Integration

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

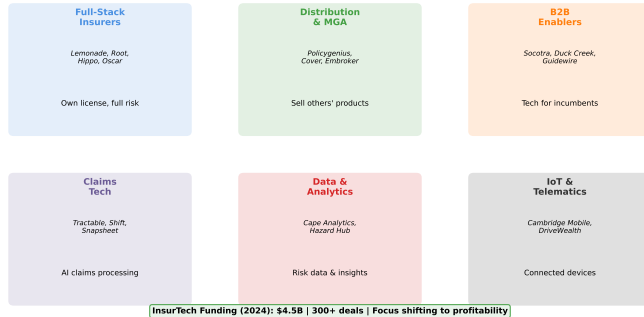
Embedded Insurance: Insurance at Point of Sale



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

Point-of-sale insurance captures the moment of need—integrated into e-commerce and travel.

InsurTech Market Segments

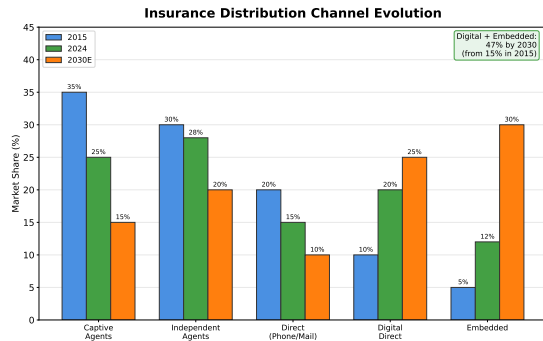


Source: CB Insights, Gallagher Re InsurTech report (2024)

Personal lines, commercial, life, and health each have specialized InsurTech disruptors.

New Channels

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



Source: McKinsey Insurance Distribution (2024) [PROJECTIONS]

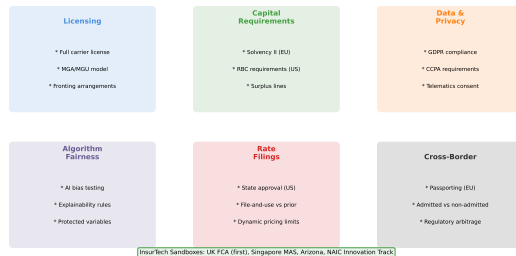
Digital brokers and aggregators bypass traditional agents—API-first enables embedded distribution.

Regulatory Challenges

Compliance Burden

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

InsurTech Regulatory Landscape



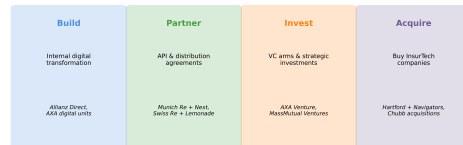
Source: NAIC, EIOPA, Lloyd's regulatory guidance (2024)

State-by-state licensing and capital requirements slow InsurTech expansion—compliance is costly.

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

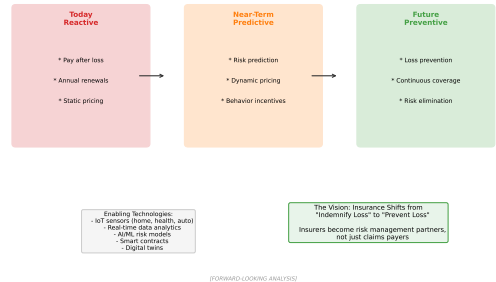
Source: Deloitte Insurance Outlook, Accenture Insurance Technology (2024)

Traditional insurers partner, acquire, and build innovation labs—digital transformation accelerates.

From Reactive to Proactive

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

The Future: Predictive & Preventive Insurance



IoT and wearables enable prevention over coverage—from reactive claims to proactive risk reduction.

Key Takeaways

- **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

InsurTech transforms insurance from reactive claims processing to proactive risk prevention.