IoT in construction

An insurance transformation driven by technology

Laura Tönnies, CEO
Thomas Cook vs. Booking.com
Action is **not** optional

**Underwriting in 2019**

vs.

?
Productivity in construction sector lagging far behind

Labour productivity, gross value added per hour worked, constant prices\(^1\)
Index: 100 = 1995

Sources: OECD
The sector bears large untapped economic potential

$1.6tr

Costs of lagging productivity to global economy yearly

Sources: McKinsey
Technology trends in the engineering & construction industry

**Project layer**
- Concept
- Initiation
- Design
- Pre-construction
- Procurement
- Construction

**Key technologies**
- Augmented reality
- Data-led risk modeling
- Building Information Modeling (BIM)
- Digital twin
- Robotics
- Off-site fabrication
- 3D printing
- Asset monitoring
- Process automation
- Asset marketplaces
- Industrial IoT
- Cross-OEM data solution
- Predictive analytics
Emerging solutions meet construction technology demand

- Prefabrication
- Digital twin
- 3D printing & modularization
- Robotics
- IoT
- AI & analytics
- Augmented reality
- Condition-based service
- Supply chain optimization & Digital Procurement

These solutions are poised to be transformational for the construction sector.
Data collection & analytics of increasing importance

- Value chain improvement
- Life-cycle analysis
- Cost optimization

- Resource optimization
- Costing
- Digital twin

- Uptime analytics
- Just-in-time delivery
- Output & quality optimization

- Predictive maintenance
- Equipment monitoring
- Asset availability optimization

Planning, production and usage data analyzed to improve future construction projects
Leveraging IoT to determine risks more precisely
Corrux leverages IoT and process data to streamline efficiency and risk assessment in construction.
A cloud-based digital ecosystem

Pre-to post-development secure data transfer

Industrial Assets → Real Time Data Extraction
Data Conversion & SQL Storage → Analytics & Predictive Models
Insights Visualization Layer → Cost Saving Insights provided to end-user
The corrux advantage

Use cases
- IndustrialOps
- BusinessOps
- EaaS
- Data security

Add-on applications
- Data Analytics
- Incident Automation
- Availability guarantees

Platform
- corrux Asset Manager
- corrux Fuse
- 3rd party integrations
Seamless integration equipment & sensor data
Across all vendors and OEMs

Simplified fleet management on complex job sites
Easy access to insights for increased asset performance

Information transfer between job site & project managers
Documentation efforts reduced, raising safety & quality of work
Corrux Fuse: Streamlining operations with analytics

Distil data into actionable insights
Real-time analysis provides increased safety and efficiency

Predictive analytics and maintenance
Understandable analytics, enabling quick action

Notifications and alarms for threshold deviations
Immediate pre-emptive measures to prevent machine failure
Cloud-based asset management

Remote asset monitoring
Improved TCO
Improved safety
Theft prevention
Streamlined maintenance scheduling
Predictive process analytics

BusinessOps

Effortless full site monitoring
Knowledge transfer across stakeholders
Safety hazards easily identified
Streamlined job site documentation
Reduced energy costs
Performance-based asset insurance and financing

Non-damage products & EaaS

- Real-time progress monitoring
- Equipment availability prediction
- Downtime reduction
- Efficiency benchmarking
- IoT-led risk sharing
## Interlocking IoT & analytics with insurance

<table>
<thead>
<tr>
<th>Today</th>
<th>Tomorrow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling lacking real-time data</td>
<td>Predictive loss prevention</td>
</tr>
<tr>
<td>Reduced ability for complex risks</td>
<td>Lowered severity cover</td>
</tr>
<tr>
<td>Downward rate pressure</td>
<td>Non-damage performance covers</td>
</tr>
<tr>
<td>Reduced ability to differentiate</td>
<td>More accurate underwriting</td>
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<tr>
<td></td>
<td>New IoT-enabled services</td>
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</tbody>
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Key takeaways

Underwriting will be transformed by IoT and real-time analytics

Progress requires focus and clear action

Non-damage performance covers can be enabled by Corrux

Technology enables great customer loyalty and new services
The industrial advantage

The corrux advantage

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