Usage Based Insurance:
Challenges and Opportunities for African (Re) Insurers.

20 May 2021
Jean Aymar Sahe

Munich RE

Image: Aeriform / Ikon Images / Getty Images

Agenda

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Introduction

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UBI description and examples

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Why should we care about UBI in a (post) COVID19 world?

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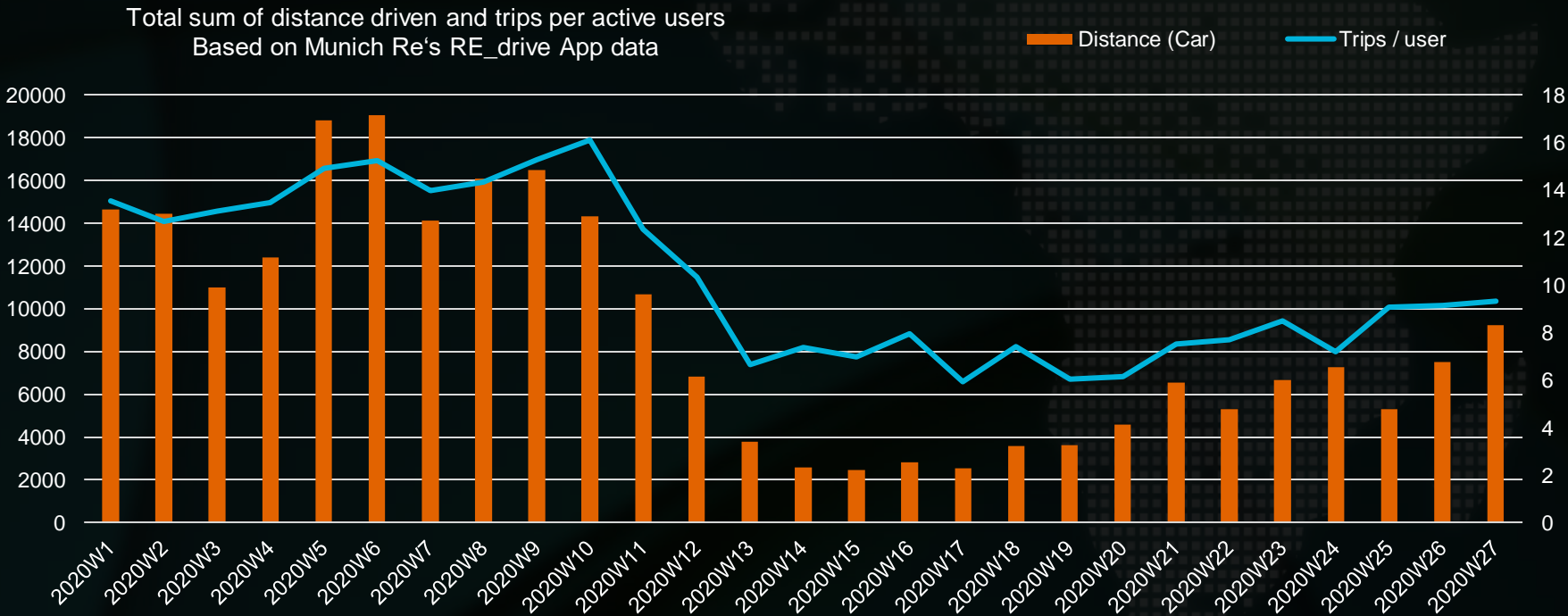## Local insurers offer premium relief

11 May 2020

Gareth Stokes

On 21 April (Santam) added R155 million to cover the cost of refunding 20% on all motor vehicle premiums paid by its commercial and personal lines clients during April 2020. Lizé Lambrechts, Santam CEO, said the insurer was "absolutely committed to playing [its] part to help alleviate some of the devastating impacts of the virus.

"Old Mutual Insure has set aside R60 million towards 15% motor premium discounts in April 2020 and 10% in May 2020 for qualifying personal lines customers. Qualifying commercial and agriculture customers will receive a 10% motor premium discount for both months"

"COVID19 relief has been offered via May premium reductions based on actual kilometres travelled in April. Drivers on the Vitality Drive programme would qualify for a 25% premium reduction on vehicles that covered fewer than 500km. A 15% premium discount would apply to all other motor insureds."

Why should we care about UBI in a (post) COVID19 world?

Total sum of distance driven and trips per active users
Based on Munich Re's RE_drive App data

■ Distance (Car) — Trips / user

Source MR GCU

Usage-Based Insurance Description

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USAGE-BASED MODELS

ON-DEMAND MODELS

Usage-Based Insurance Description

Flexible coverage:

- Policyholder can adjust sum insured anytime.
- Add/Remove items

Flexible Duration:

- Easy activation: "switch on and off"
- "Pay per trip" accident or life insurance

ON-DEMAND MODELS

Usage-Based Insurance Example:
FlexiSafe

ON-DEMAND MODELS

Usage-Based Insurance Types
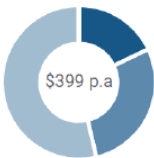
USAGE-BASED MODELS

"Pay As You Drive":

- One major factor: e.g.: km driven
- Price varies with usage (e.g.: number of km driven)

"Pay How You Drive":

- Driving score based on a number of behavioral factors: e.g.: braking, acceleration, cornering etc.
- Price discounts based on score
- Other rewards/services (gamification)
- Powered by telematics technology

Usage-Based Insurance Example:
Motor Vehicle Telematics

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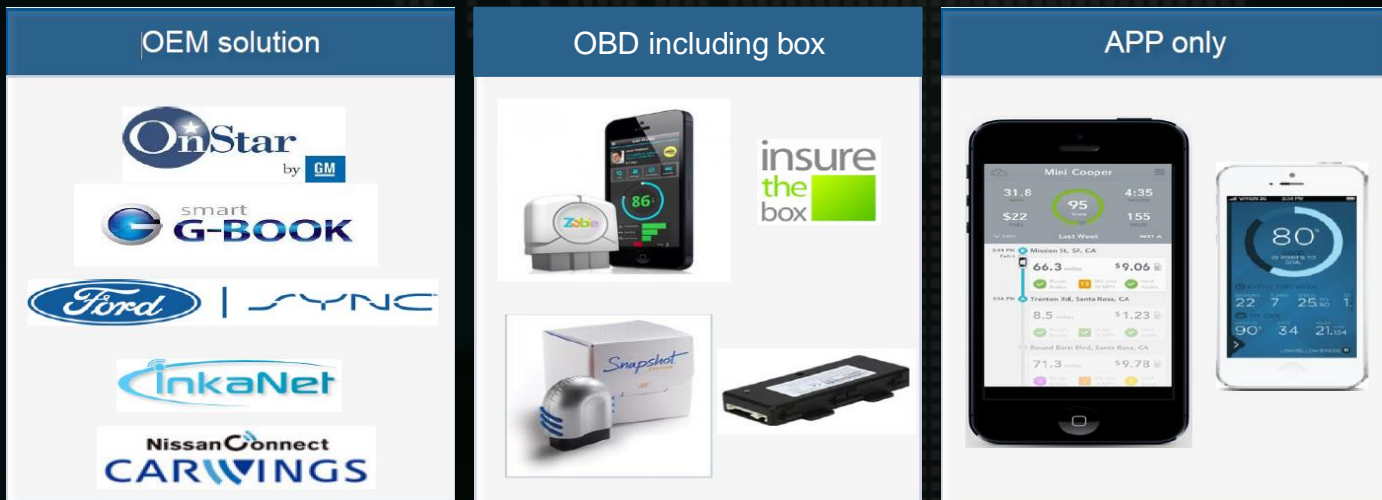## Types of telematics devices

**USAGE-BASED
MODELS**

OEM solution	OBD including box	APP only

Usage-Based Insurance Example:
Motor Vehicle Telematics

Choice of a telematics hardware

USAGE-BASED MODELS

OEM solution	OBD including box	APP only
+ most complete data capturing capability + added-value and services + risk follows the vehicle, not the driver. - only available to certain vehicle brands - high service fee with low renewal ratio - barriers to data sharing	+ permanent data transmission + added-value and services easy to implement + risk can follow both driver and vehicle - Higher cost than APP only - Box needs professional installation - OBD can be easily remove - around 0.5% failure rate	+ lowest cost + software is easy to upgrade + built-in camera for crash investigation and fraud + risk follows the driver, not the vehicle - data-noises - driver identification

Usage-Based Insurance Example:
Motor Vehicle Telematics

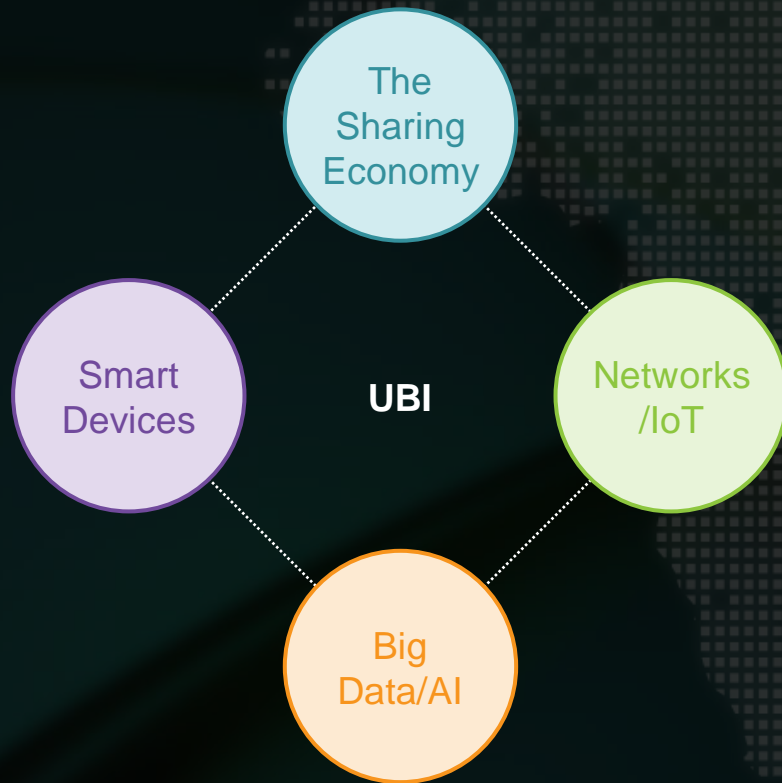## Munich RE's App Only Example: the RE_ Drive App

USAGE-BASED MODELS

"RE_Drive" is available. Download for free on Google Play & Apple App Store

What major factors will be decisive for UBI expansion in Africa?

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- The Sharing Economy
- Smart Devices
- **UBI**
- Networks /IoT
- Big Data/AI

What major factors will be decisive for UBI expansion in Africa?

Unique mobile subscribers in Africa

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Penetration Global Average	46%	50%	54%	58%	60%	63%	65%	68%	70%	71%	72%
Penetration (Africa)	31%	35%	38%	41%	44%	46%	48%	50%	52%	53%	54%
Unique Subscribers (million)	327	375	428	467	513	557	589	630	665	697	725

■ Unique Subscribers (million)　—●— Penetration Global Average　—●— Penetration (Africa)

The Sharing Economy

Smart Devices

UBI

Networks /IoT M2M

Big Data/AI
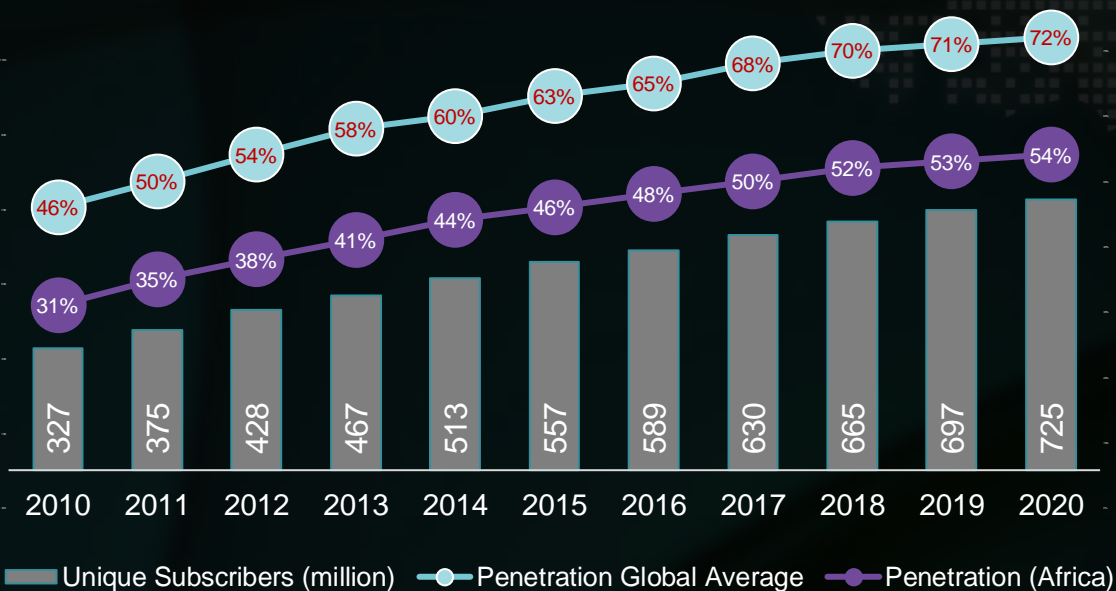
Source: GSMA Intelligence 2017

Smart Devices
their evolution in Africa

Smartphone adoption growing in Africa
Percentage of connections

Year	Global Average	Africa
2010	8%	4%
2011	12%	6%
2012	19%	9%
2013	28%	13%
2014	37%	17%
2015	45%	23%
2016	51%	30%
2017	56%	37%
2018	60%	44%
2019	63%	51%
2020	66%	57%

— Global Average — Africa

Source: GSMA Intelligence 2017

The Sharing Economy

Smart Devices

UBI

Networks /IoT M2M

Big Data/AI

Network infrastructure and IoT readiness
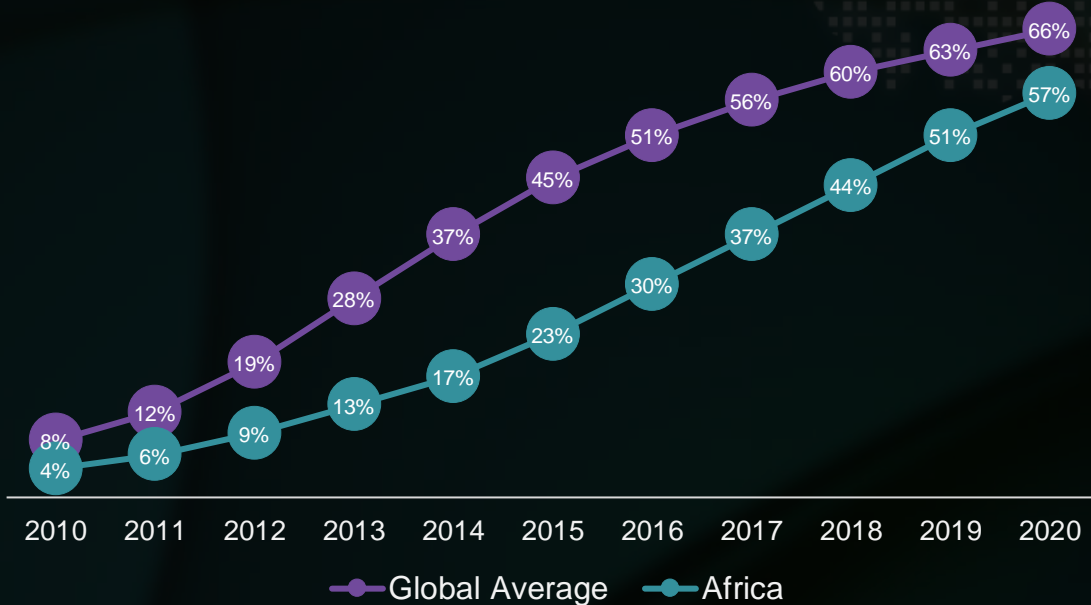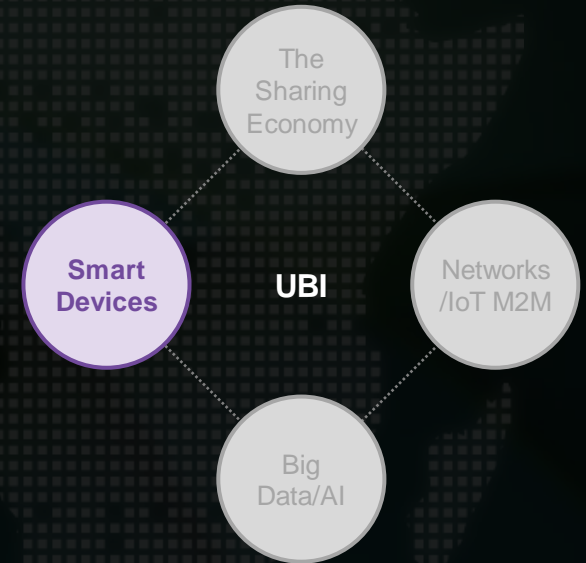
Mobile-internet subscriber penetration

Region	2015	2020
Sub-Saharan Africa	24%	39%
Nothern Africa	33%	51%
Africa	25%	41%
Developing countries	39%	56%
World	44%	60%

■ 2015 ■ 2020

Source: GSMA Intelligence 2017

Big Data/AI

Networks /IoT M2M

UBI

Smart Devices

The Sharing Economy

Network infrastructure and IoT readiness

Gartner
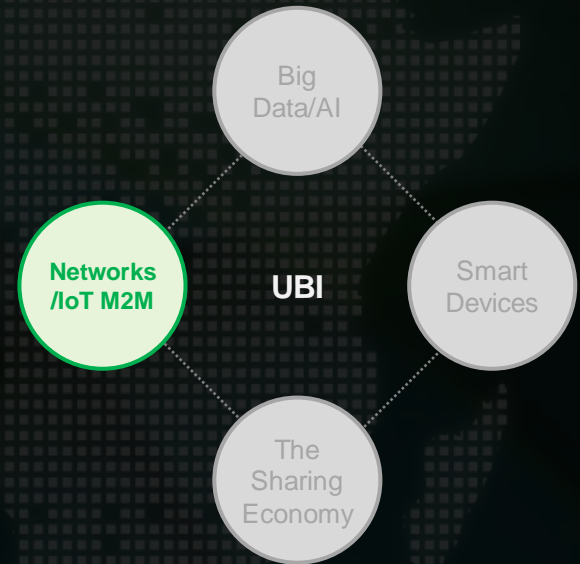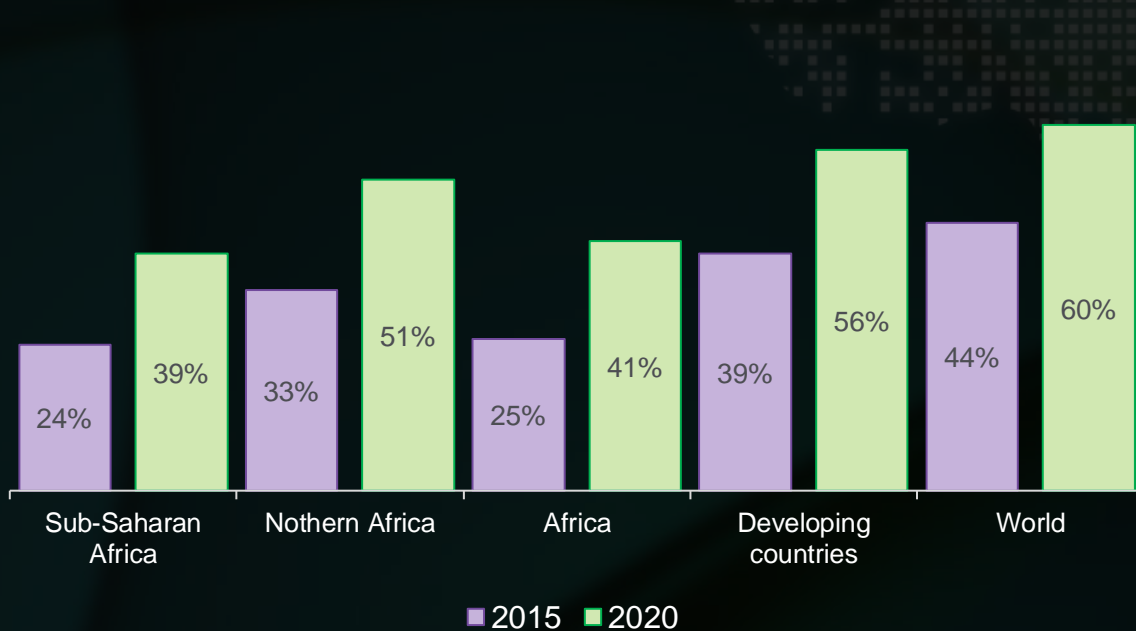
"…8.4 billion connected things in use worldwide …"

IHS TECHNOLOGY
Information | Analytics | Expertise

"…there will be 75 billion connected devices by 2020…."

LUMKANI
PROTECTING AGAINST FIRES

"2015 Global Social Venture Competition Winner"

HUAWEI

"MTN and Huawei jointly launched the Smart Water Metering solution, the first Narrowband Internet of Things (NB-IoT) solution in Africa…"

IT NEWS AFRICA
AFRICA'S TECHNOLOGY NEWS LEADER

"Vodacom's Narrow Band Internet of Things Network now commercially available …"

Big Data/AI

Networks /IoT M2M

UBI

Smart Devices

The Sharing Economy

Source: press review 2017

Community & Fairness

Flexibility & Affordability

Simplicity & Speed

Networks /IoT M2M

The Sharing Economy

UBI

Big Data/AI

Smart Devices
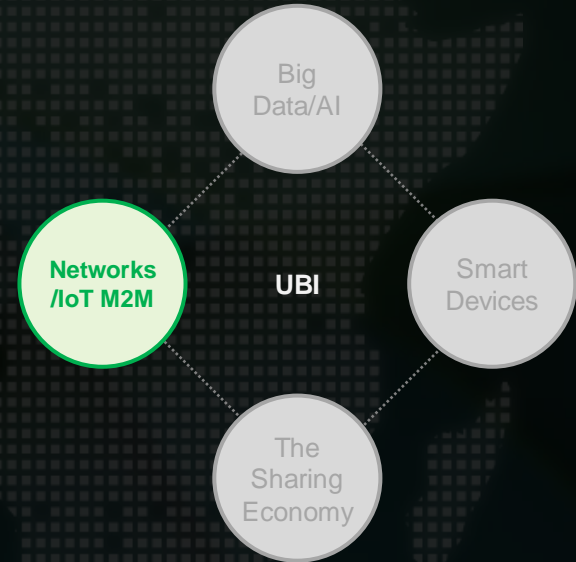
The Sharing Economy
causing a drastic shift in customer expectations

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Imeela.com

SafeBoda.com

CarTrip.co.za
JumpInRides.co.za
Afristay.com
ThundaFund.com
Startme.co.za
Naked Insure
Pineapple

Little.bz
Changa.co.ke
mukuru.com

mukuru.com

Legend:
- **Car Sharing**
- **P2P Accommodation**
- **P2P Finance/Crowdfunding**
- **P2P Insurance**

Networks
/IoT M2M

The
Sharing
Economy

UBI

Big
Data/AI

Smart
Devices
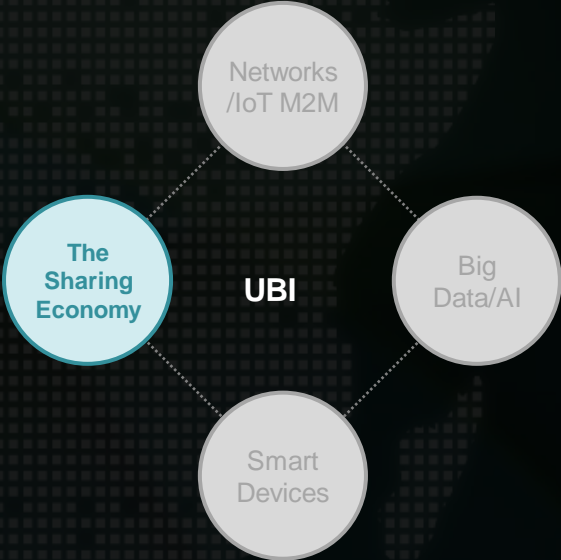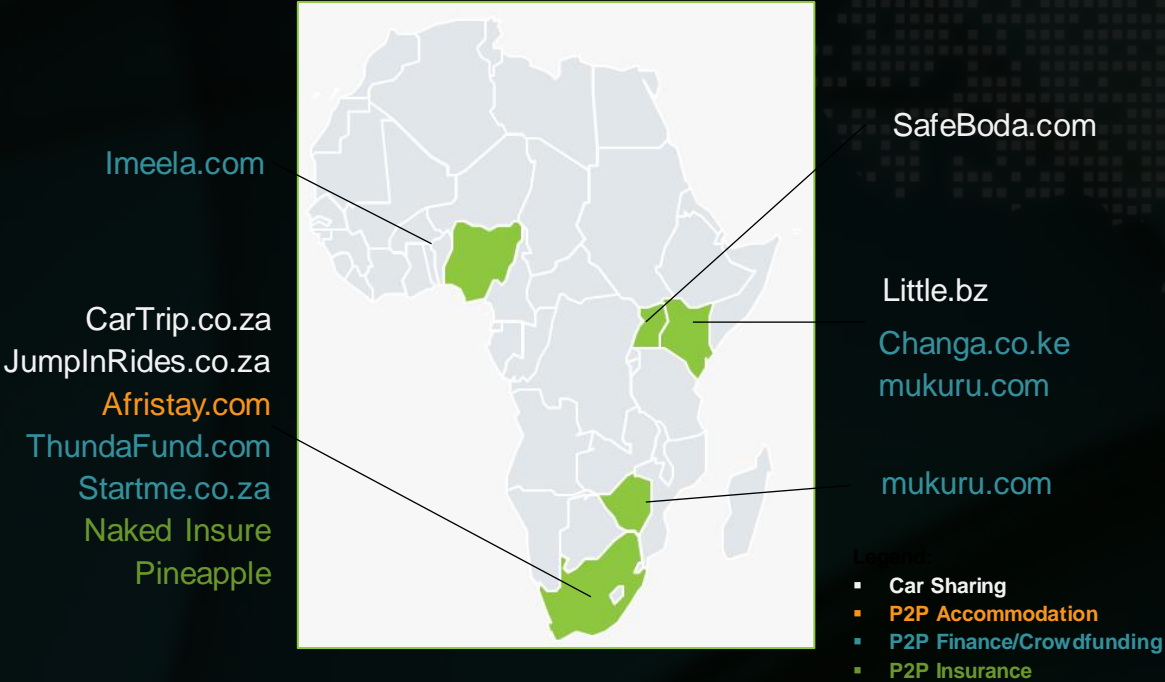
Some Examples of Africa-Based Sharing Economy Start Ups

Big Data / Artificial Intelligence
Data is the new gold!

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1 Collect data

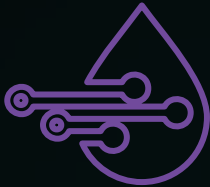Client/portfolio data

Munich Re data

External data sources

2 Store, cluster and structure data
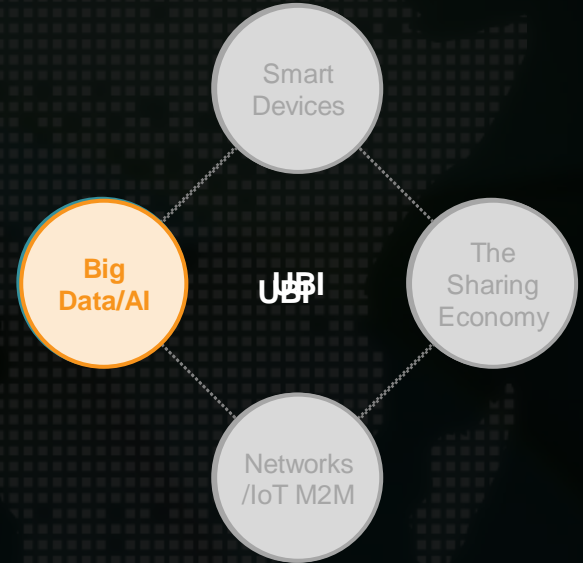
Data lake

3 Analyse data

Machine learning, AI, statistics

4 Add value

Solution
- Improve efficiency
- Improve portfolio quality
- Business generation

Smart Devices

Big Data/AI

UBI

The Sharing Economy

Networks /IoT M2M

How can Munich Re assist?
Our integrated offering

FloowKit	Product	FloowDrive[1]
Software Development Kit (SDK)		White label app
Proprietary core technology stack (incl. risk scoring, crash detection etc.) for a scalable, smartphone-based telematics PHYD product	**Product**	Proprietary core technology stack (incl. risk scoring, crash detection etc.) for a scalable, smartphone-based telematics PHYD product
Proven and highly flexible SDK, allowing for telematics integration into existing member app	Technology	Standalone telematics program with white label app that can be tailored to clients' look and feel
- Seamless integration in existing app - Fully customizable: front-end, features etc. - Cost effective telematics capabilities within any mobile app	Benefits	- Can be deployed very quickly - Effective path for PHYD - Incl. all continuous app updates
- Higher development effort on clients' side - Development updates potentially at higher cost	Challenges	- Multiple apps in the app stores - Customization limited to branding and wording - Higher cost than FloowKit

The Floow

How can Munich Re assist?
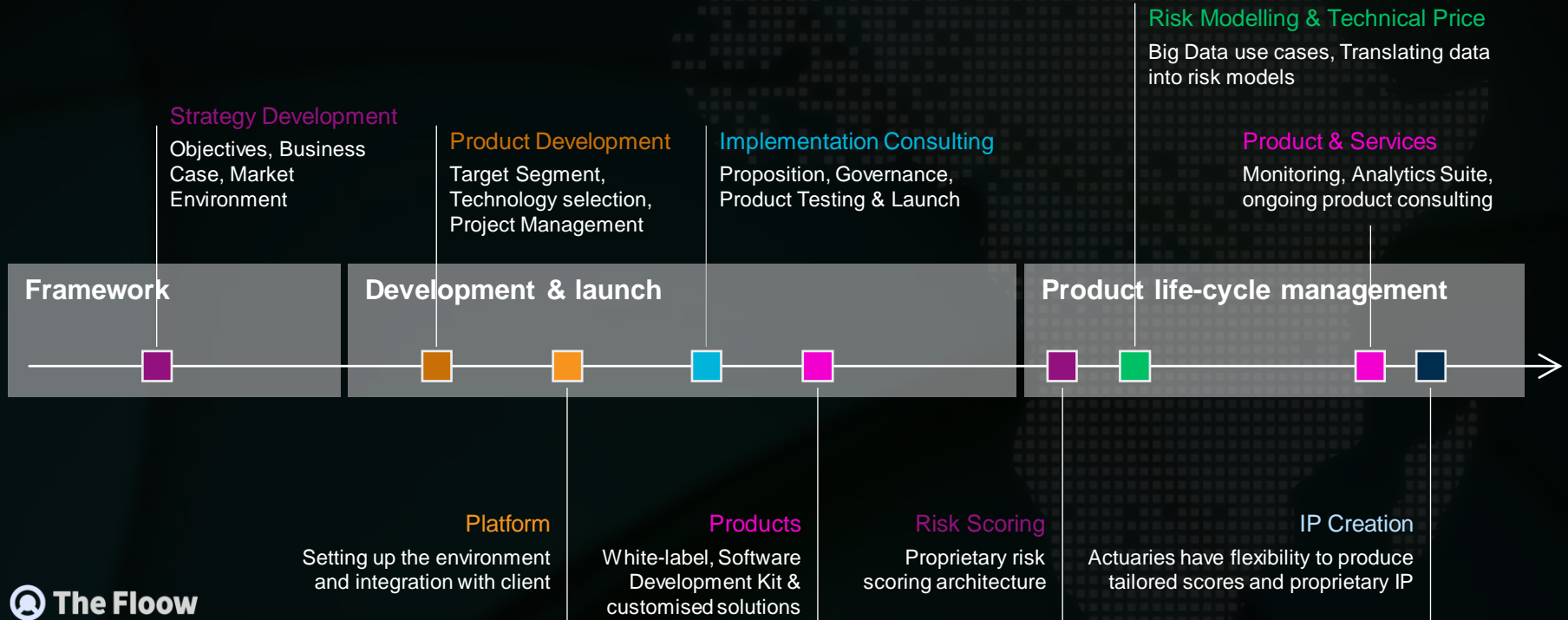## *The Munich RE Global Consulting Services*

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Risk Modelling & Technical Price

Big Data use cases, Translating data into risk models

Strategy Development

Objectives, Business Case, Market Environment

Product Development

Target Segment, Technology selection, Project Management

Implementation Consulting

Proposition, Governance, Product Testing & Launch

Product & Services

Monitoring, Analytics Suite, ongoing product consulting

Framework

Development & launch

Product life-cycle management

Platform

Setting up the environment and integration with client

Products

White-label, Software Development Kit & customised solutions

Risk Scoring

Proprietary risk scoring architecture

IP Creation

Actuaries have flexibility to produce tailored scores and proprietary IP

The Floow

Thank you!

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