



PAYL – Wearable trends

How will real-time client activity
and health data change your
insurance business?

April 2016



EY

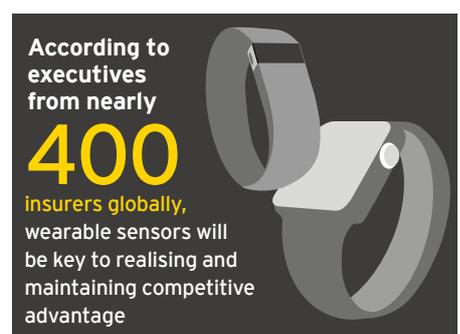
Building a better
working world



How will real-time client activity and health data change your insurance business?

For the insurance industry, the impact of sensor technologies will be extensive, profound and long lasting. Already, top-performing insurers are leveraging wearable technologies to create significant value by:

- ▶ **Creating direct, unmediated customer relationships** – as customers share objective activity data in return for insurer benefits
- ▶ **Providing advanced intelligence about customers** – with data sets that combine vast historical information with real-time streams, allowing insurers to create truly individualised relationships, as opposed to the generic segmenting and rudimentary targeting of the past
- ▶ **Optimising the customer base for profitability** – and simultaneously manage risk and underwriting functions more effectively



In fact, according to EY's 2016 Sensor Data Survey of senior executives from nearly 400 insurers globally, wearable sensors will be one of the most important data sources for future competitiveness within their industry¹.

This paper looks at the latest trends in wearables and how insurers can monetise the data they produce using EY's Pay as you Live proposition – a platform designed to help health and life insurance customers live healthier, more connected lives.

¹ EY, *EY's 2016 Sensor Data Survey: Disrupt or be Disrupted*, 2016 (<http://www.ey.com/GL/en/Industries/Financial-Services/Insurance/ey-2016-sensor-data-survey>)

Wearable sensors

Insurers have been working with telematics in the form of Pay as you Drive propositions that record speed patterns and distance travelled as well as the type of roads a customer uses, and when. The technology can also monitor driving behaviour (such as braking and cornering) to build up a picture of an individual's driving style.

Now, personal telematics devices can do the same for humans, collecting a growing range of biological and geo-spatial measurements. These go beyond basic fitness metrics (steps, heart rate, distance) to enable holistic, wellness-focused analytics. For example, the Mio SLICE (previewed at CES 2016) calculates an individual's target activity that will maximise their lifespan and reduce their risk of diabetes and cardio-vascular disease.

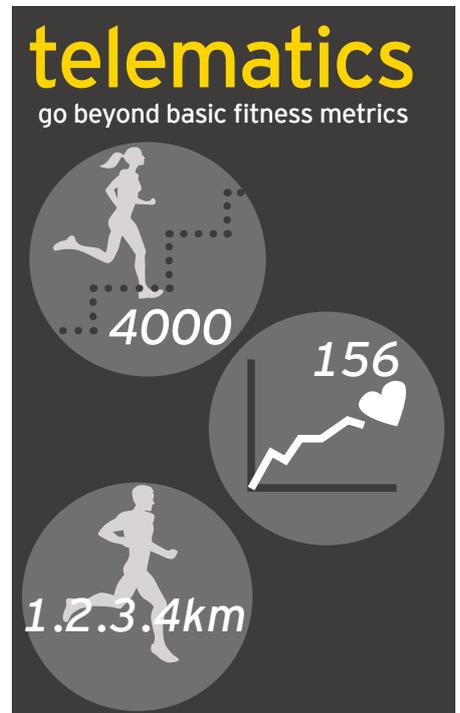
Already, in-ear and headband health monitors are adding greater functionality. The LG Heart Rate Headphones measure physical activity plus blood oxygen levels, while SMS Audio's Biosport and Bragi's Dash measure fitness through in-ear headphones. The Spree Headband collects fitness data and Thync's headwear releases low-level electrical pulses to calm or stimulate brain activity. Soon, re-designed Google Glass may include inner-ear and tongue speech recognition, bone-conduction audio and a holographic visual interface (allowing for augmented reality), creating the potential for a complete health assessment and coaching experience. Wearable telematics create significant opportunities for individuals and their insurers.

We believe that the most effective wearable telematics propositions will involve a true partnership between individual clients and insurers. Telematics devices create value for clients who elect to share this data and control its distribution and use. Insurers can build strong and lasting relationships with their customers when this exchange of information is transparent and mutually beneficial.

Using wearable telematics to build lasting customer relationships in health insurance

Imagine Justin, a 46-year old business development manager. Up until four years ago, Justin was in poor physical and mental health: overweight and a regular smoker. He slept between four and a half and five hours a night as he worked a punishing schedule that left "no time" for physical exercise. His smoking habit in particular made sure that he paid a high premium for his health insurance. But then his insurer offered Justin the opportunity to take part in a program designed to help him understand his personal health drivers. He started wearing a telematics device that recorded his critical health data and – via an app on his smartphone – showed him the likely effects of his activities and gave him coaching and advice to improve his health and wellbeing.

Supported by his health insurer, the program helped Justin to make lifestyle changes (exercise, diet and sleep). As these changes made him feel better, Justin took more significant steps to improve his fitness and diet – while at the same time building a lasting connection with his health insurer. Over time, his health insurance premium was lowered to reflect his reduced risk of illness, and his insurer used the extensive data from his wearable to tailor personalised products and services that suited his preferences and new lifestyle.



Smart clothing

Fitness bands will soon be augmented by sensor-equipped clothing that can capture a range of health data. Although this technology is not new (in 2014, Ralph Lauren fitted ball-teams at the US Open Tennis Championships with shirts that monitored heart rate, breathing, and stress) availability has been limited and price a deterrent.

But now this is changing. OM Signal featured a smart sports bra at CES 2016 that measures running economy, breathing rhythm, fatigue, biometric effort and includes a sophisticated coaching function. Similarly, a smart belt from Samsung can track steps and weight gain – and even determine whether waist expansion is due to overeating, bloating or weight gain.

Physically integrated devices

Embeddables or ingestibles are primarily focused on medical applications, but we believe they will soon be used in everyday health and wellness assessment. Already, Medtronic's PillCam is an ingestible camera (inside a dissolvable pill) takes video footage to assess intestinal health. Meanwhile, the ABILIFY tablet, from Otsuka Pharmaceutical and Proteus, includes a sensor that relays information to a wearable patch and software application and monitors medication-adherence for sufferers of severe mental illness (schizophrenia or bipolar I disorder), as well as coaching the patient to help them manage symptoms. We believe that future embedded devices (similar to RFID implants) will monitor our day-to-day health internally and constantly, providing users (and nominated insurers) with extensive health data.

Digital health identities inform personalised insurance quotes

Consumers will increasingly take the opportunity to make their health data available to an insurer, with a view to receiving a personalised health or life insurance offering and premium based on their level of fitness and likelihood of illness.

Gamification will play a key role for building and maintaining long-term customer engagement. Standardised points systems based on the level of physical activity and eating habits will help customers translate healthy behaviours into rewards generating measurable results for both consumers and insurers.

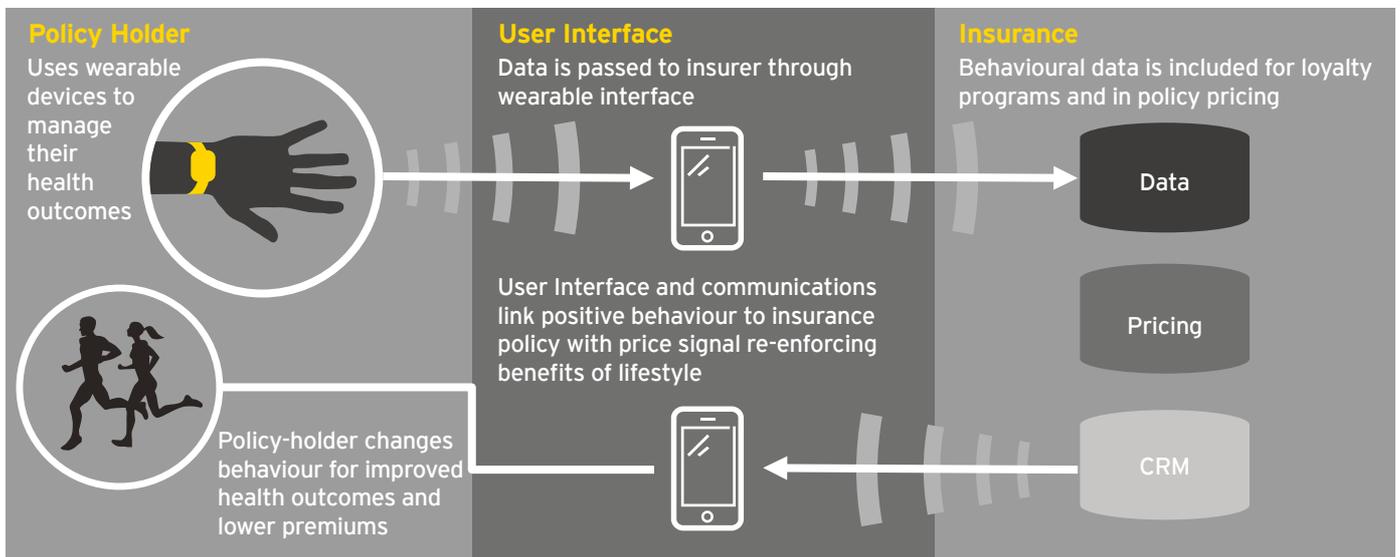
Finally, wearable devices may serve to reduce risk through preventative action. For example, drivers who exhibit signs that indicate extreme fatigue may be deterred from getting behind the wheel of a vehicle based on actuarial estimates of their likelihood of causing an accident.



Helping insurers take advantage of this rapidly accelerating opportunity

EY's PAYL is an insurance program and accelerator that leverages wearable telematics to:

- ▶ Support customer health and wellness, while reducing risk for life and health insurers
- ▶ Help insurers better understand their customers by creating individual biometric profiles that can be used to deliver personalised products and services
- ▶ Reduce the cost of customer on-boarding and identification
- ▶ Create growth opportunities by building an ecosystem of partnerships (such as health and wellness loyalty programs tied to wearable use) to access to new customers
- ▶ Improve retention by leveraging wearable data analytics to create personalised customer propositions



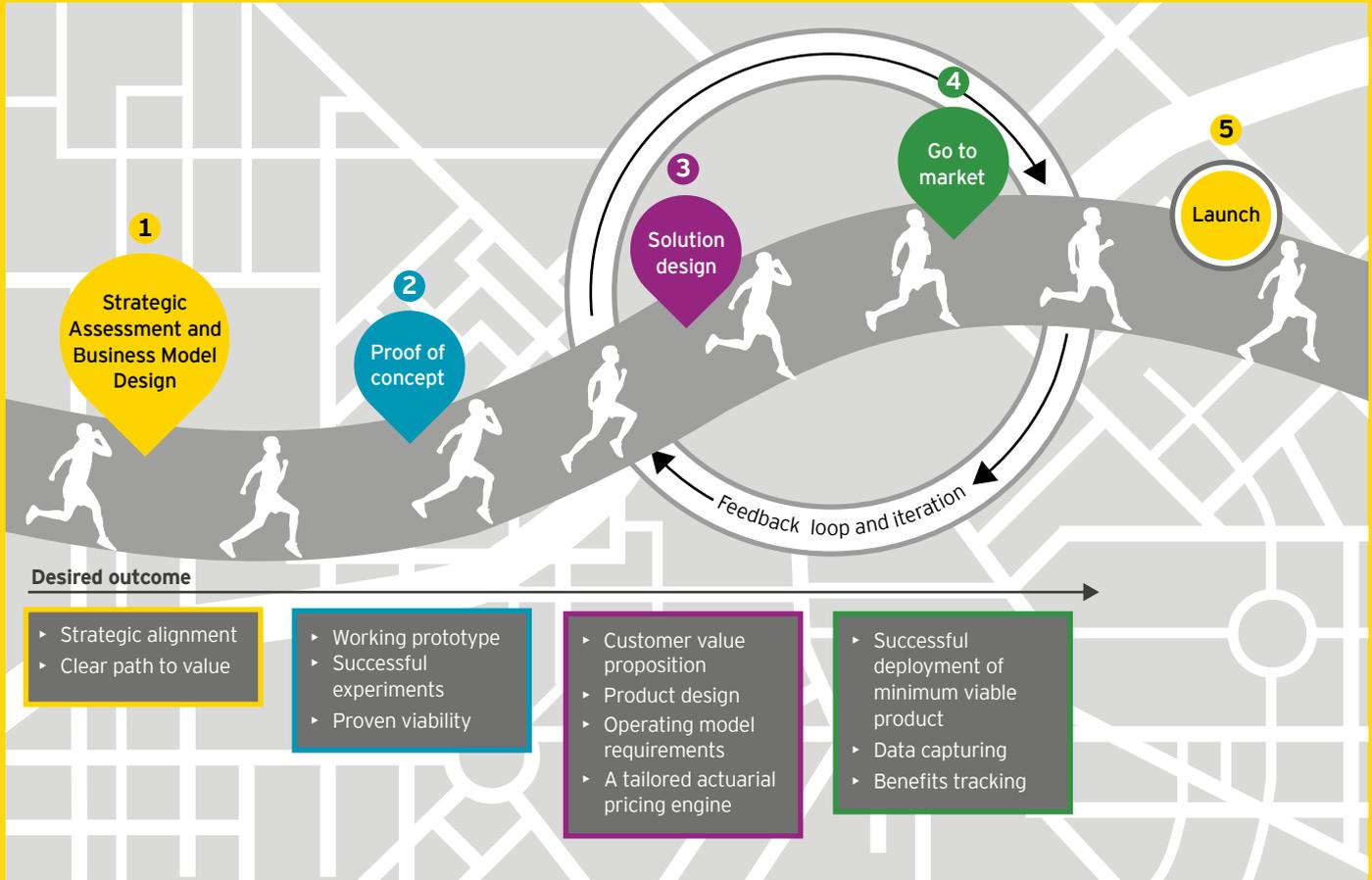
Over the longer-term, PAYL may help insurers to collect sufficiently detailed customer data to develop individualised products and services and compile biometric signatures that accurately identify customers, reducing the costs of on-boarding and customer identity validation.

EY has designed PAYL in conjunction with a usage-based insurance leader. Drawing on our global expertise in insurance, strategy development and customer-centric product design, together we work with forward-thinking clients to co-create tailored value propositions and working product prototypes.



Figure 1

EY proposes an accelerated and collaborative approach to leverage the existing prototype to develop and launch a tailored solution for your market



EY's global network of insurance, technology, actuarial and customer strategy professionals are ready to help you take an end-to-end PAYL solution to market.

Our PAYL and digital thought leaders

EY's global network of insurance, digital, actuarial and customer strategy specialists are ready to help you take an end-to-end PAYL solution to market.



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APAC No. AUNZ00000620
M1629221
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