IoT and new “values”

What kind of values should the IoT business model provide for successful implementation?

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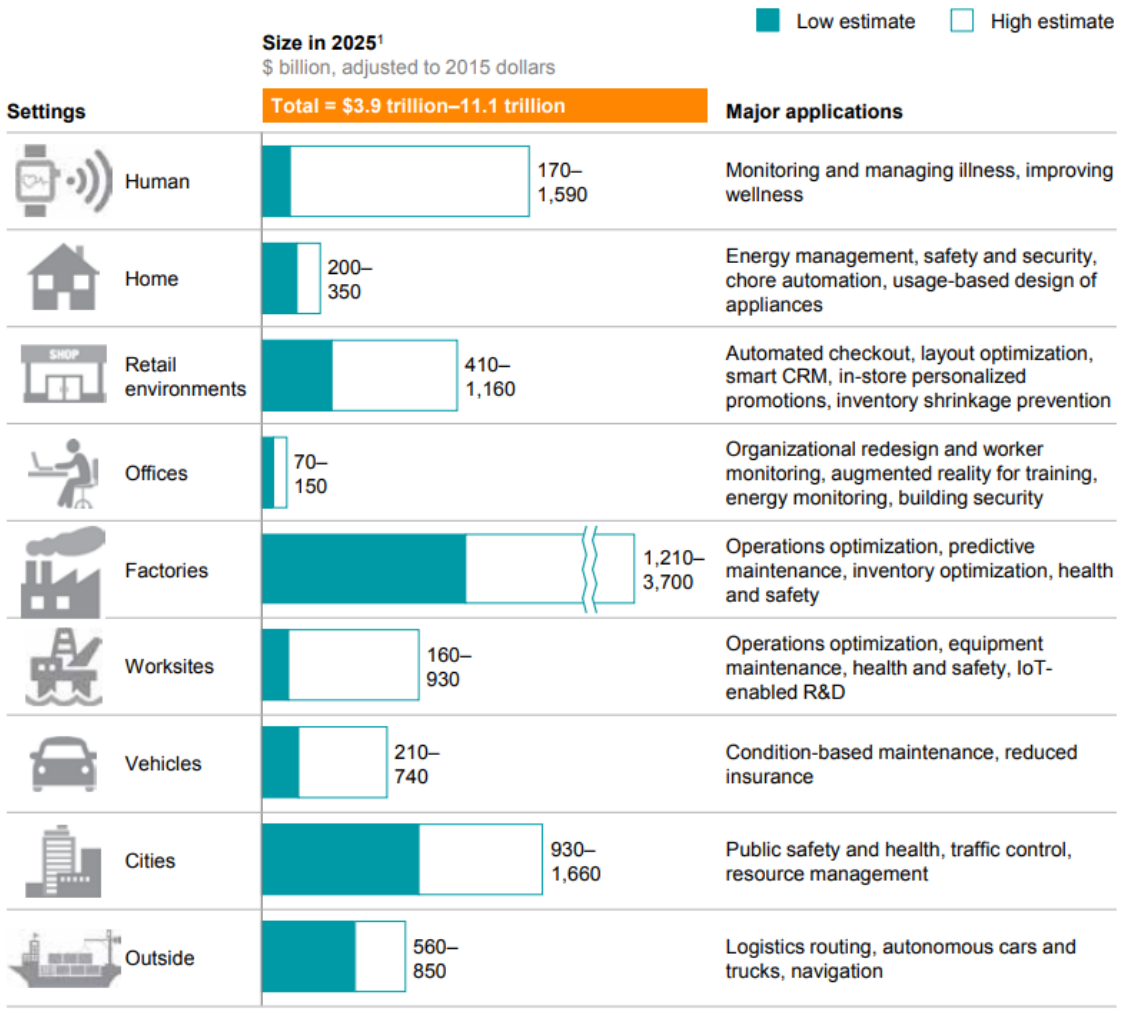
The economic impact point

Potential economic impact of IoT in 2025, including consumer surplus, is $3.9 trillion to $11.1 trillion



1 Includes sized applications only.
NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

Value as a result of the savings function obtained due optimization processes

Value as a result of the function of a born NEW VALUE as a result of the processes

Which methodology to use due measuring the direct effects of the IoT on the economy?

How to define and thus quantify the IoT?

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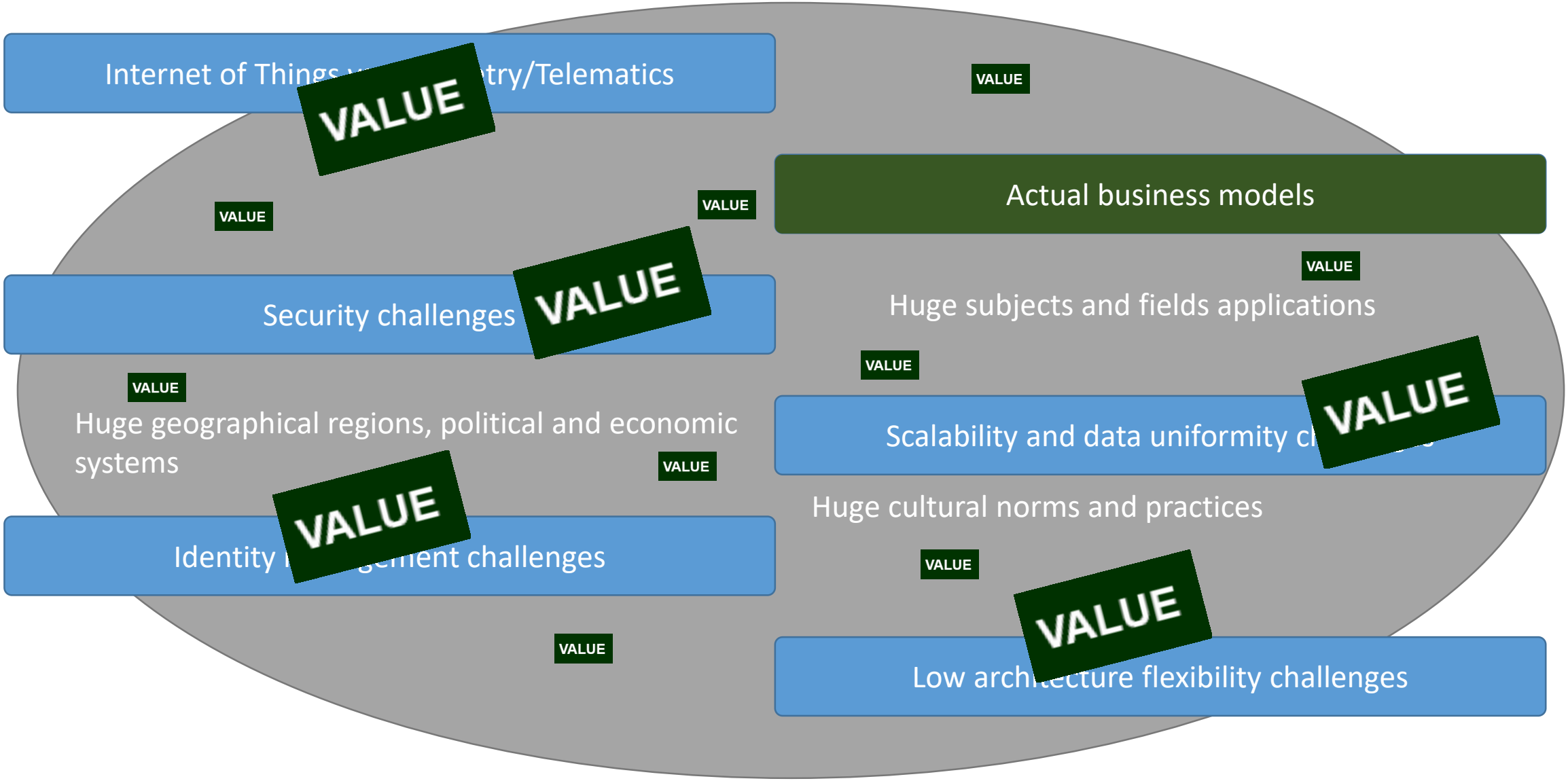
In seeking of the sense and definition



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Prerequisites for the emergence of the IoT

- Broadband Internet
- Big Data
- Intelligent Services
- Personalization of Services
- Mobility of Services
- Portability of Services

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Technological drivers for new values

American Council for an Energy-Efficient Economy (ACEEE):

- best practices in building operations have been shown to cut energy consumption by **10–20%**

U.S. Department of Energy:

- equipment retrofits cost approximately **20-times** more than low-cost operational measures
- a perfectly tuned building will see energy efficiency degrade by **10–30%** each year that not only ensures that the **10-20%** of energy savings are realized, but that they are maintained going forward

As a concrete example, two 200-ton centrifugal chillers serving a 162,930-square-foot office building. IoT data revealed that many hours were spent with both chillers operating simultaneously at less than 45% capacity each. The analysis showed that savings of about 5 percent could be achieved by operating a single chiller at 90% load instead of both at 45% load. Annual ***energy savings*** would be about 34,500 kilowatt-hours (kWh), or about $2,800 per year at $0.08 per kWh.

Further analysis revealed ***additional savings***. By shutting down one chiller, the auxiliary chilled-water and condenser-water pumps that served it could also be shut down. This would yield additional savings of about 14,100 kWh or $1,100 annually, bringing the overall savings from improved chiller sequencing to about $3,900 per year

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Transformation drivers for new values

- Transformation of technological processes
- Transformation of maintenance processes
- Transformation of usage processes
- Transformation of development processes
- Transformation of project processes
- Transformation of economic processes

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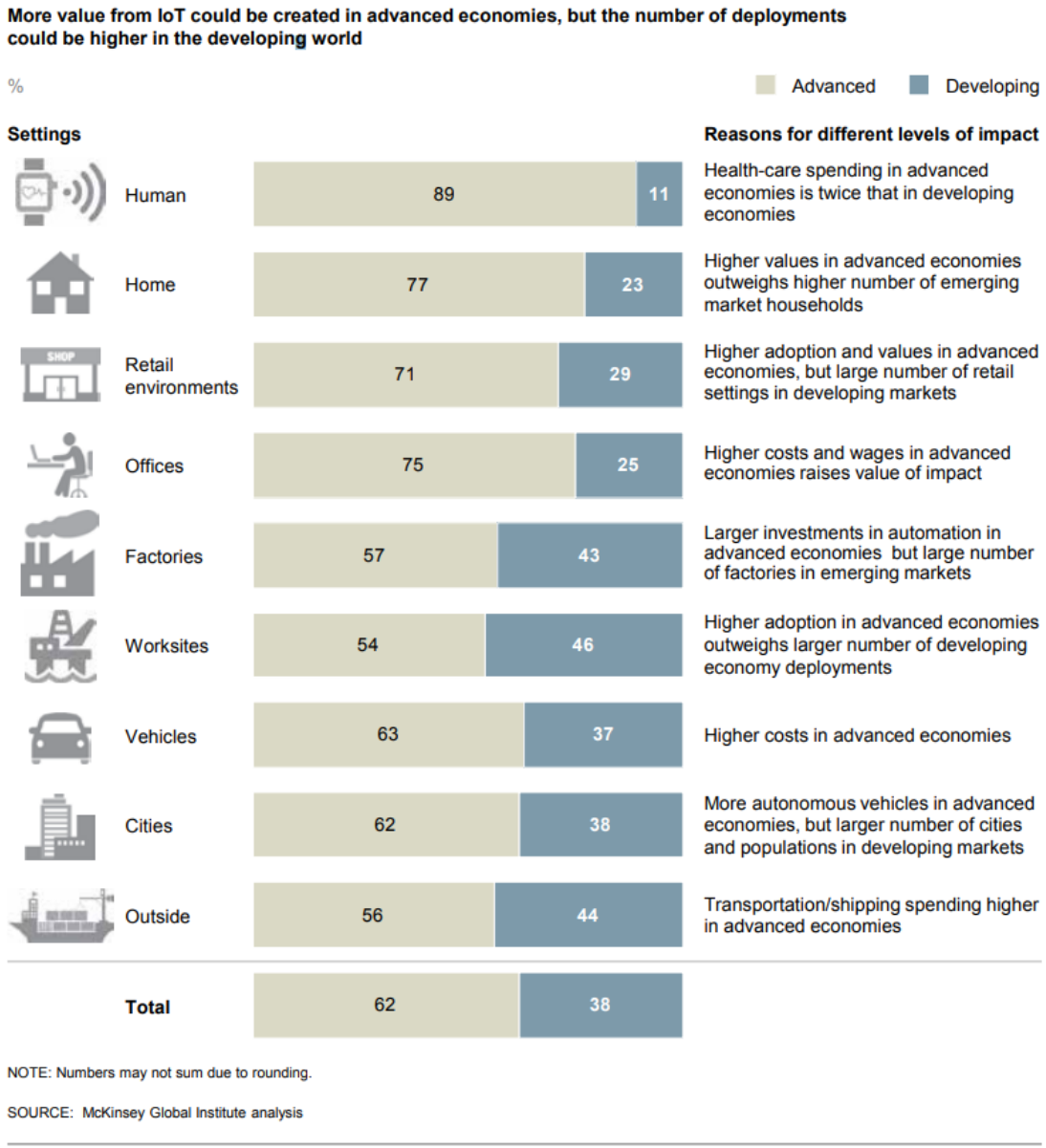
Regional and geographical drivers for new values



The main revenue driver for 54% of enterprise IoT projects is cost savings — *IoT Analytics*

Only 35% of IoT projects are used to increase revenue (e.g., by offering new IoT-connected products and services) — *IoT Analytics*

24% of projects also increase overall safety (e.g., by offering enhanced monitoring systems with real-time alerts and notifications) — *IoT Analytics*

97% of organizations feel there are challenges to creating value from IoT-related data — *Aruba Networks*

Business investment will account for more than 50% of the overall IoT spend in 2020 — *PwC*