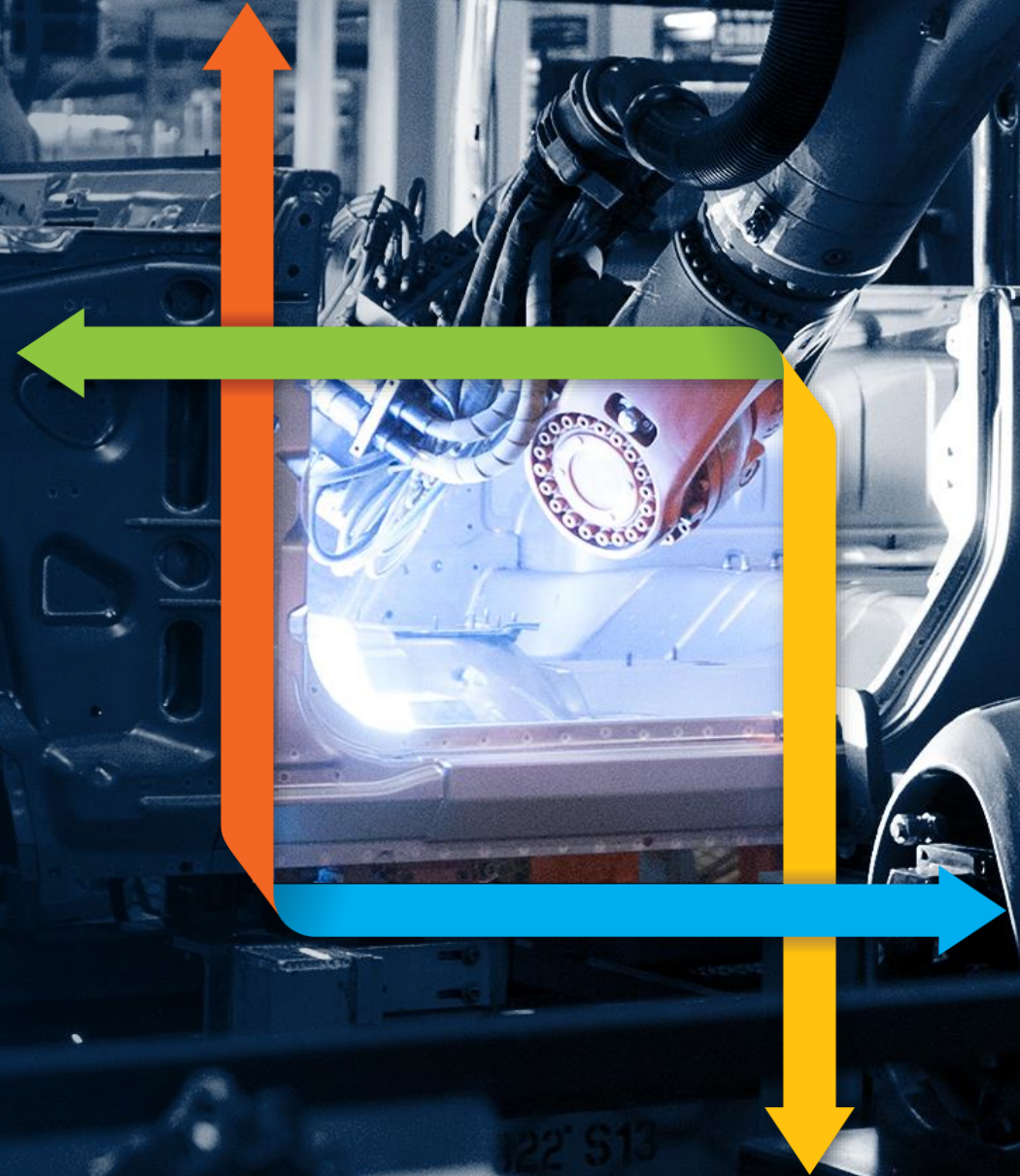
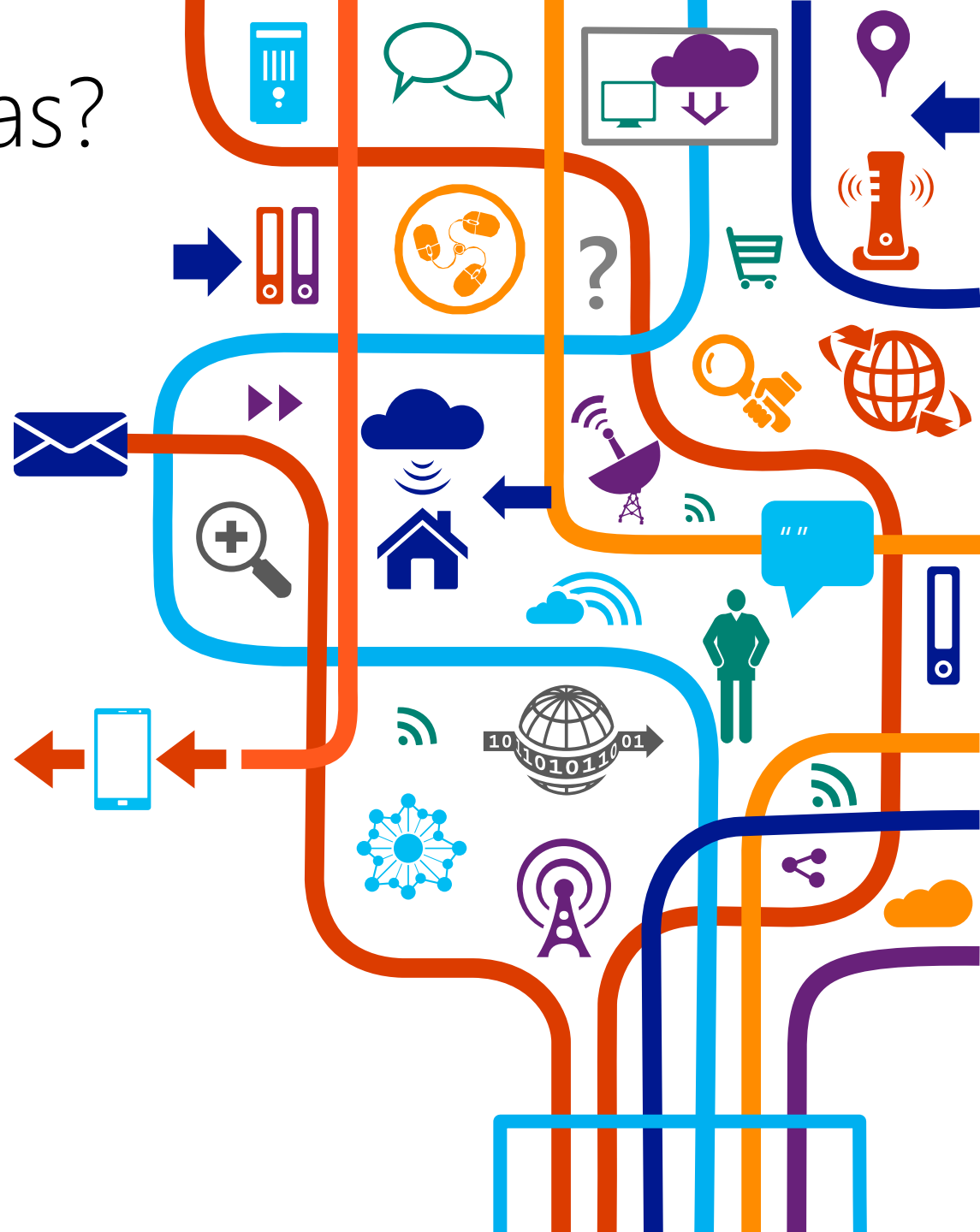


Internet of Things



O que é a Internet das Coisas?

Uma rede de objetos físicos
que contêm tecnologia
incorporada para se
comunicar e interagir com
seus Estados internos ou
para o ambiente externo.



O que são "your things"?

Você tem COISAS...



Plant Floor
Things

Back Office
Things

Supply Chain
Things



Cloud & Network
Enabled Infrastructure



Analytic & Business
Intelligence Tools

Você tem DADOS...



Transactional
Data



ERP
Data



CRM
Data



PLC Data



Social
Data



Public
Data

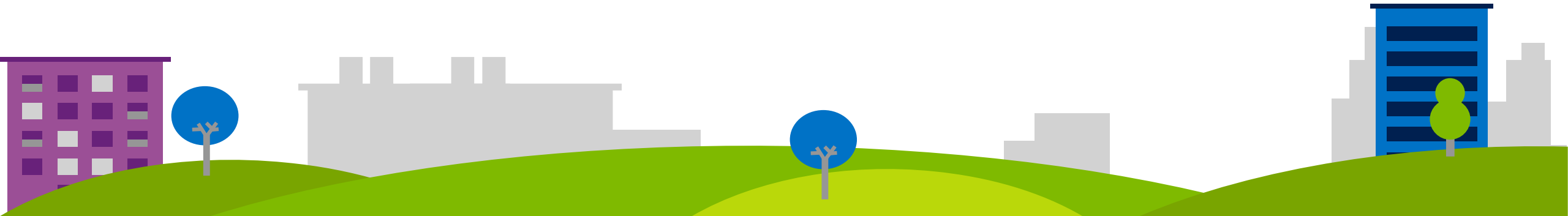
Estas são coisas que
capacitam e habilitam as
pessoas



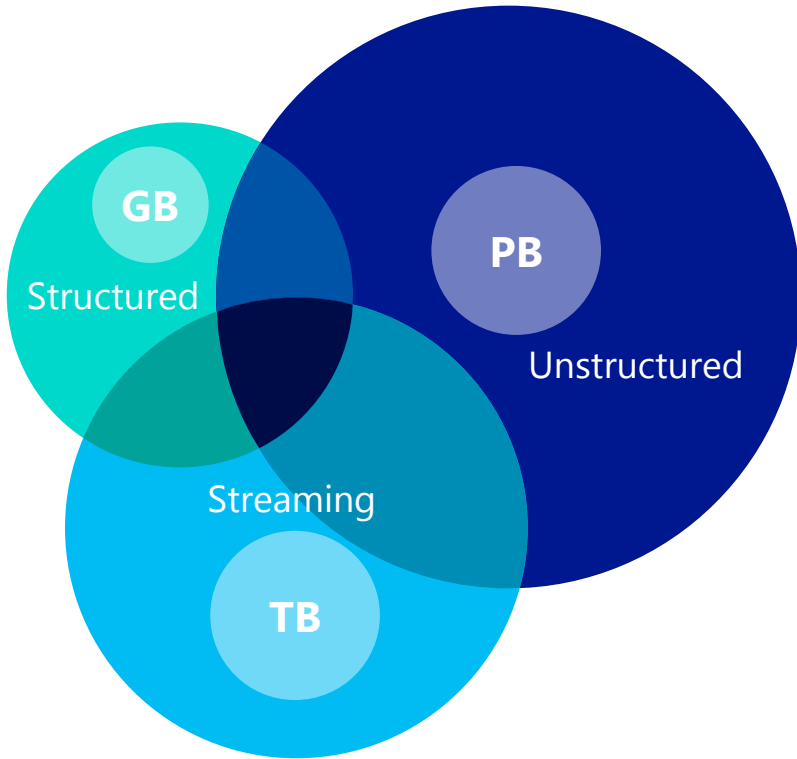
Eles permitem que você
se conecte com clientes
e parceiros de negócios



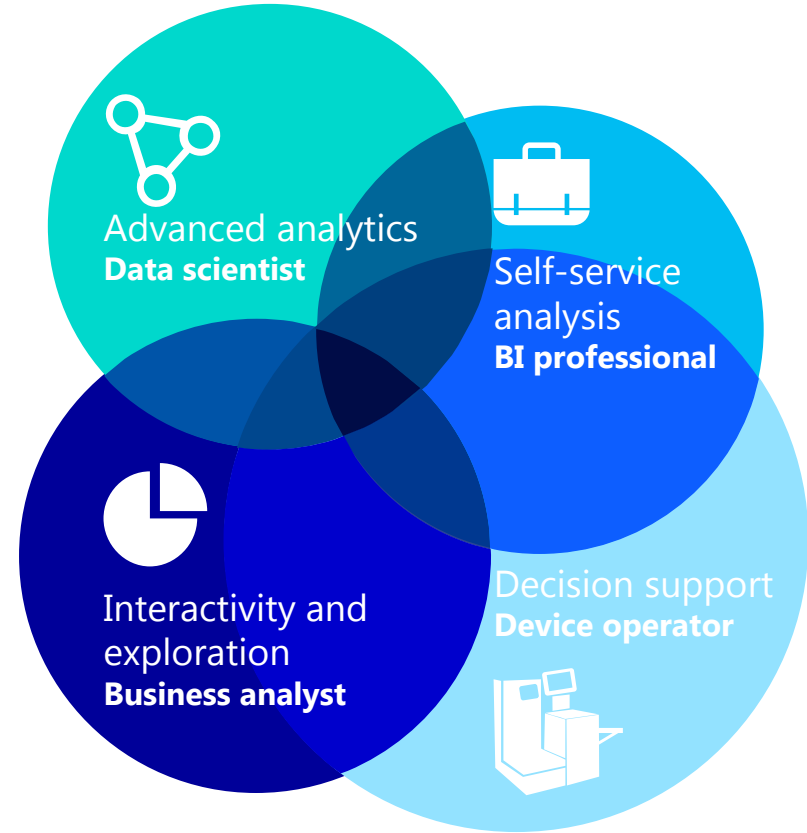
Eles são componentes
críticos que ajudam a
turbinar seu negócio



Capturing greater value from your things



Find, combine, and
manage your data



Transform your business
with better insights

The Internet of Your Things

Os custos da
computação
estão caindo

Demanda do
dispositivo
conectado
está
acelerando

Opções de
dispositivos
estão se
expandindo.

Mais
máquinas
estão falando
umas com as
outras

O software é
mais
avanzado do
que nunca.
For I=1 to N
Next I

Os benefícios
econômicos
são enormes

Quando tudo
é possível, por
onde eu
começo ?

Que coisas eu
deveria
conectar ?

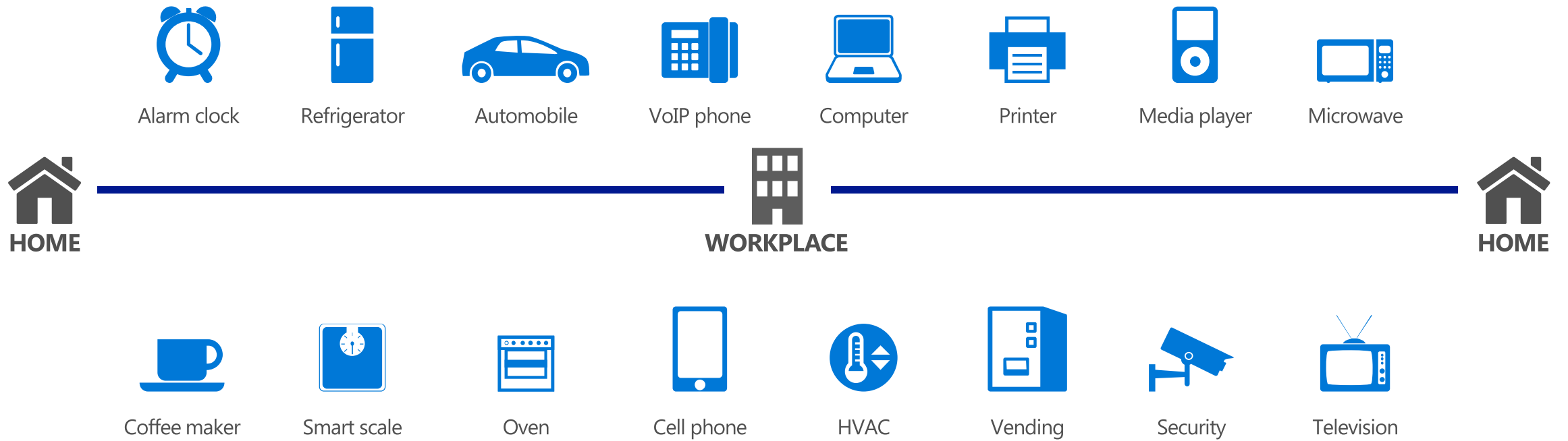
Esqueça a Big
Picture....

Comece por
um pequeno
projeto

A Internet das
coisas começa
pelas suas
coisas...

Devices
Cloud
Mobilidade
Big Data

IoT 2010



IoT 2015



Medication adherence



Health monitoring



Pet tracking



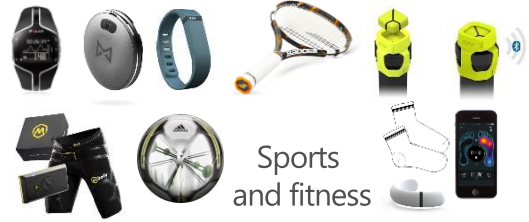
Behavior modification



Object tracking



Child and elder monitoring



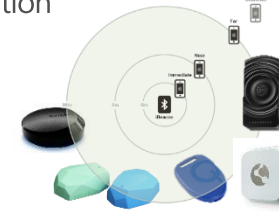
Sports and fitness



Smart lighting



Indoor navigation



Beacons and proximity



Trip tracking and car health



HOME

COMMUTE



WORKPLACE

COMMUTE



HOME



Smart appliances



Food and nutrition tracking



Identity



Office equipment



Smart vending machines



Bike ride stats and protection



Sleep tracking



Air conditioning and temperature control



Environmental sensors



Information capture



Control



Home security



Home automation



Leak detection



Garden, lawn and plant care



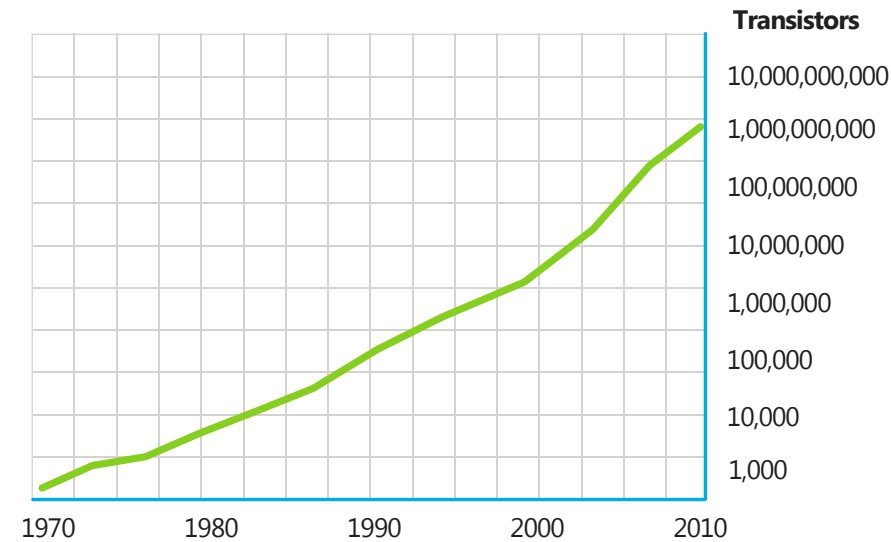
New devices and sensors



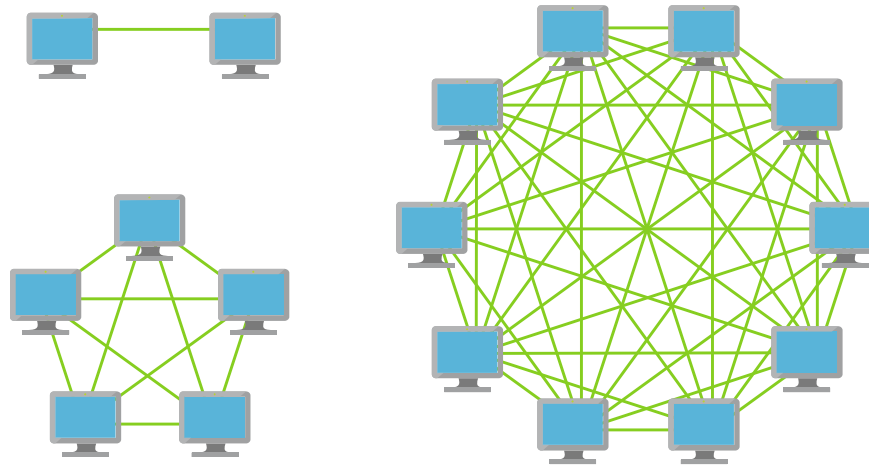
Entertainment systems

Disruptive Forces

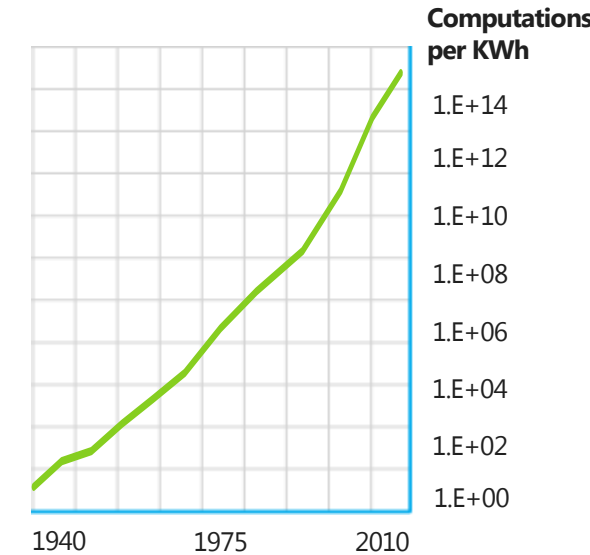
Moore's Law



Metcalf's Law



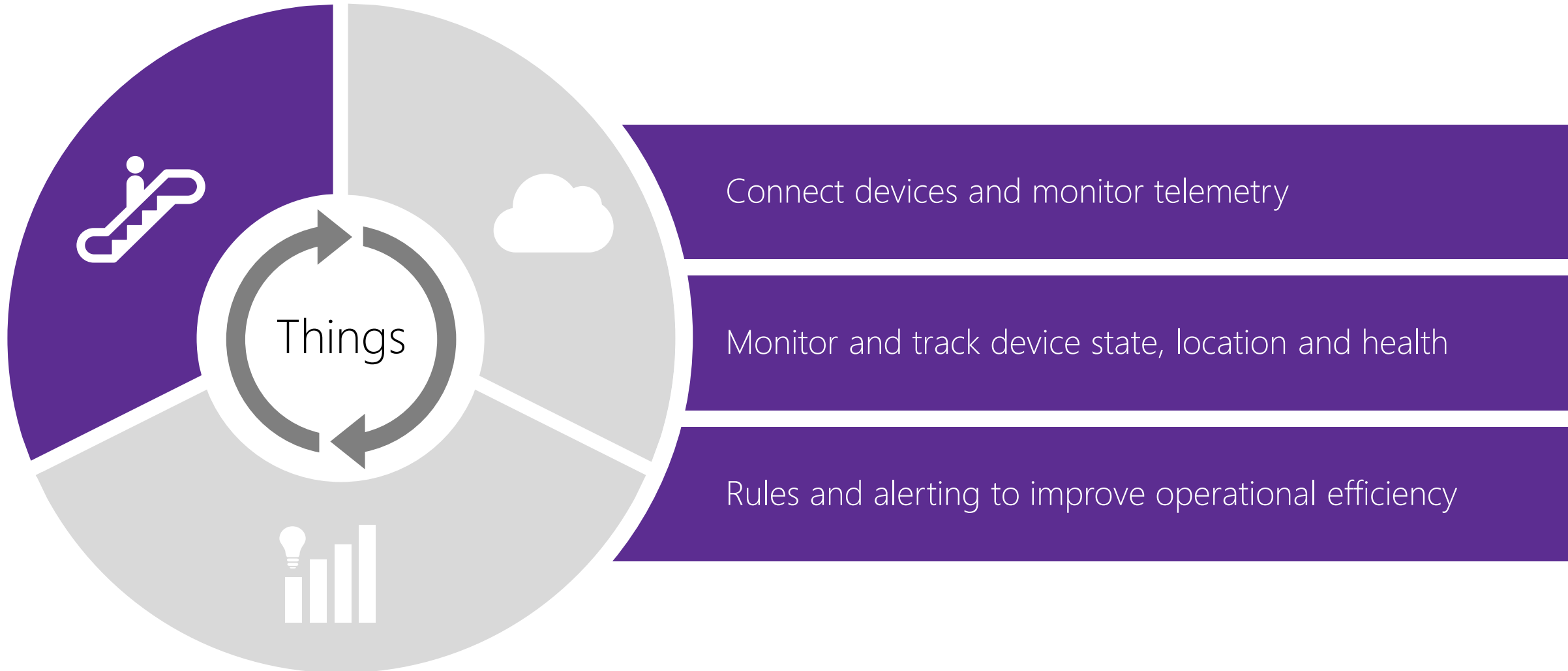
Koomey's Law



And more importantly:
what can you do by combining and analyzing signals from all of these IoT devices?

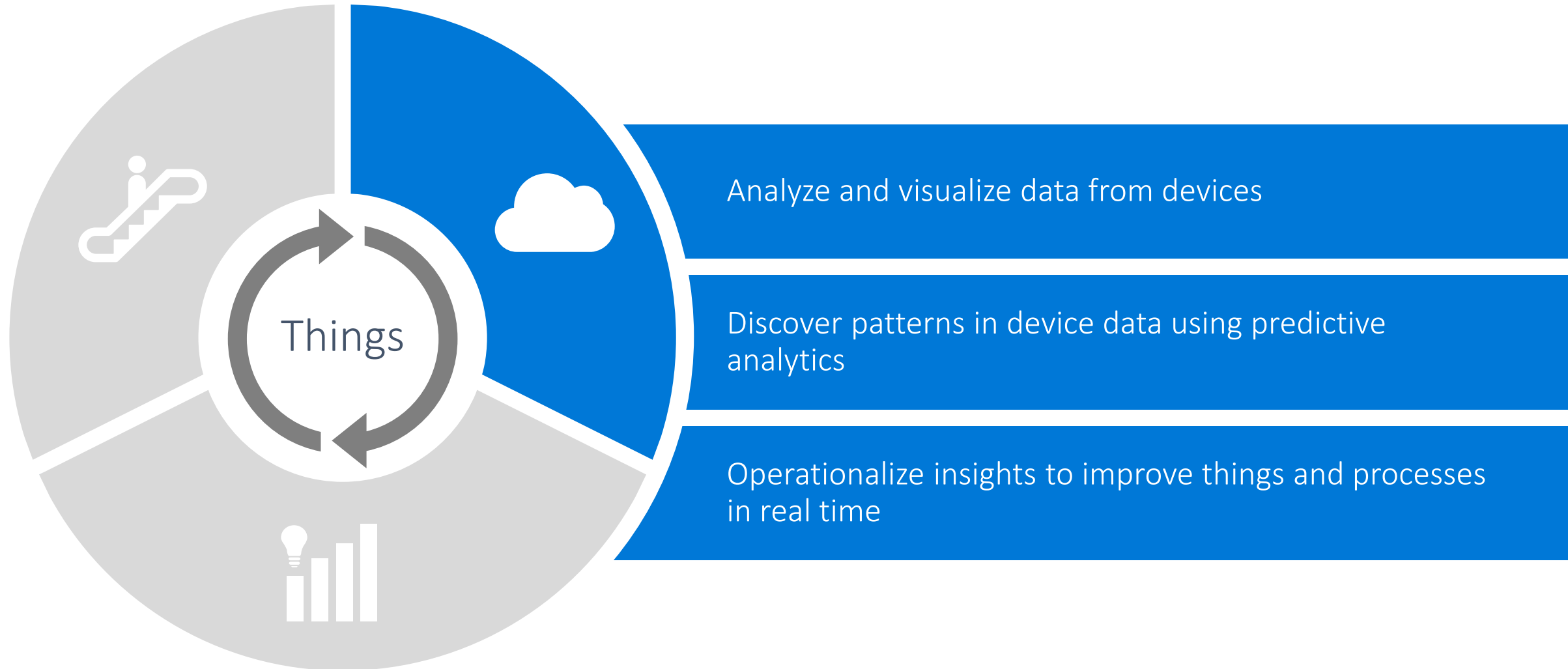
IoT Business Maturity Model

1. Operational efficiency



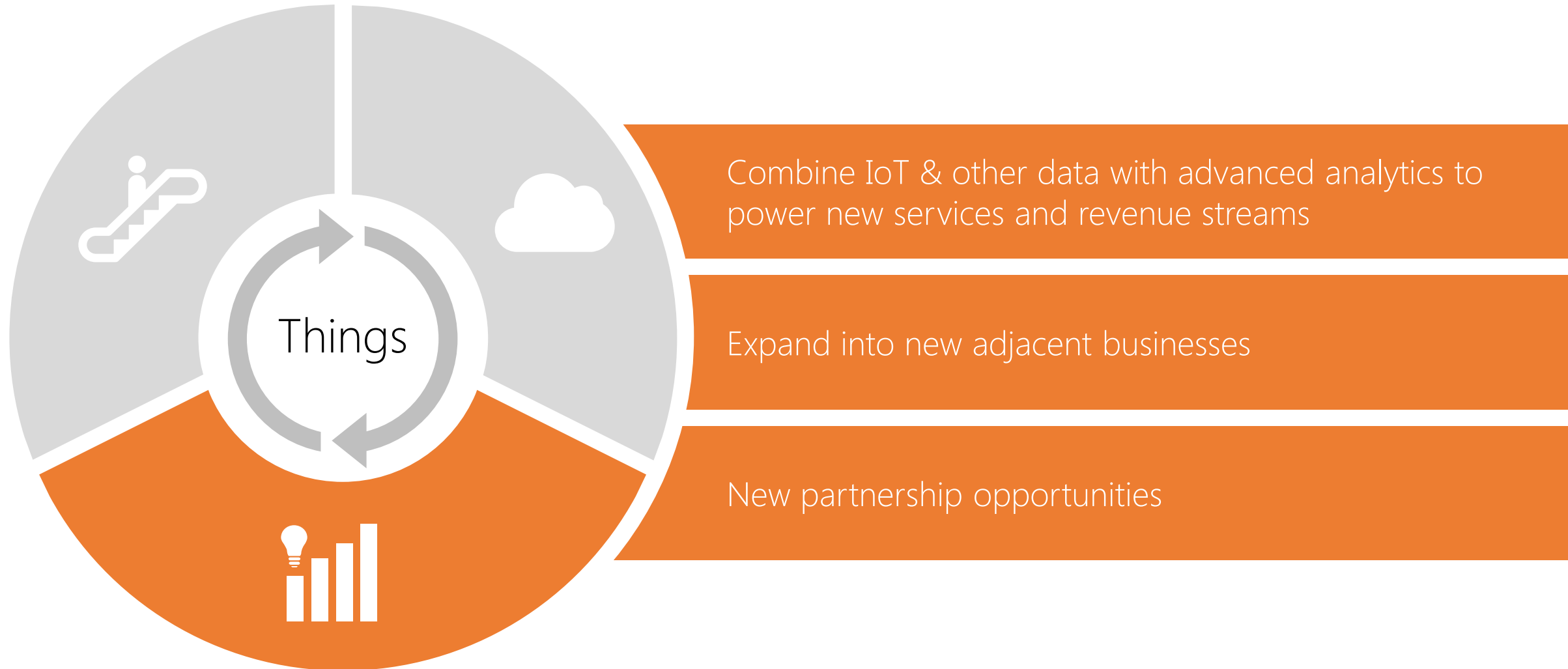
IoT Business Maturity Model

2. Business Intelligence

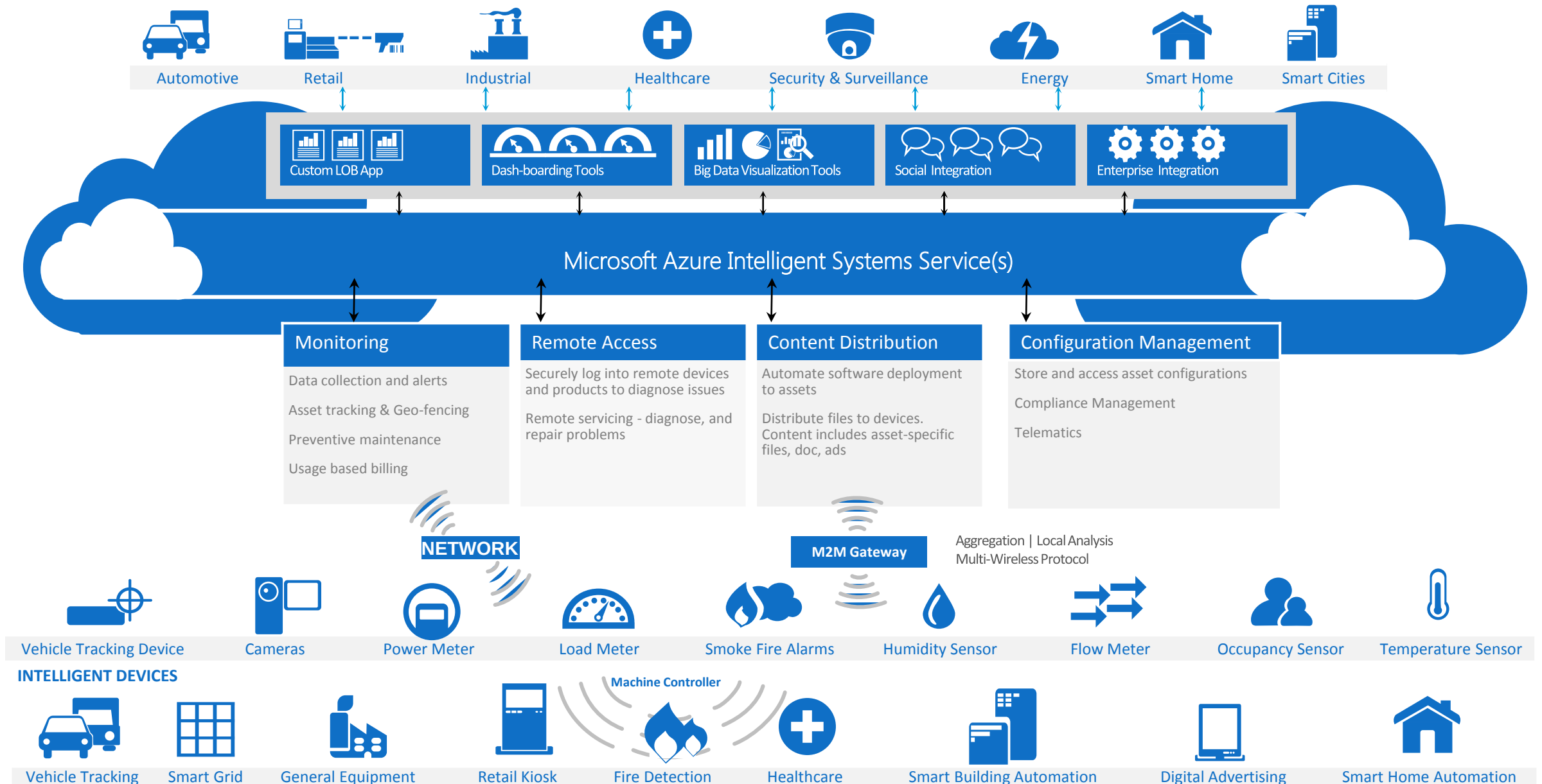


IoT Business Maturity Model

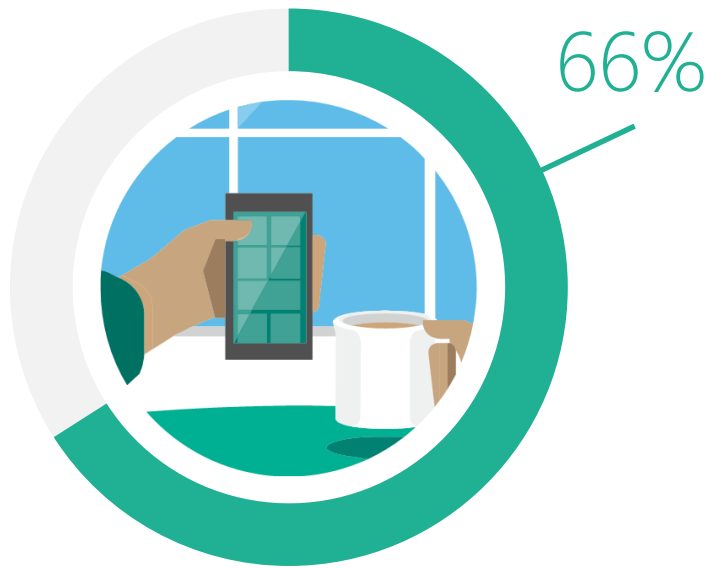
3. Business Transformation



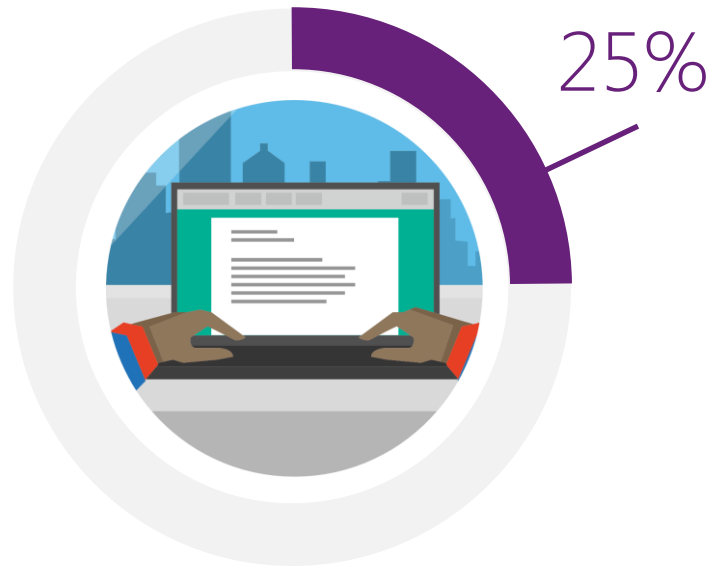
Microsoft Internet of Your Things



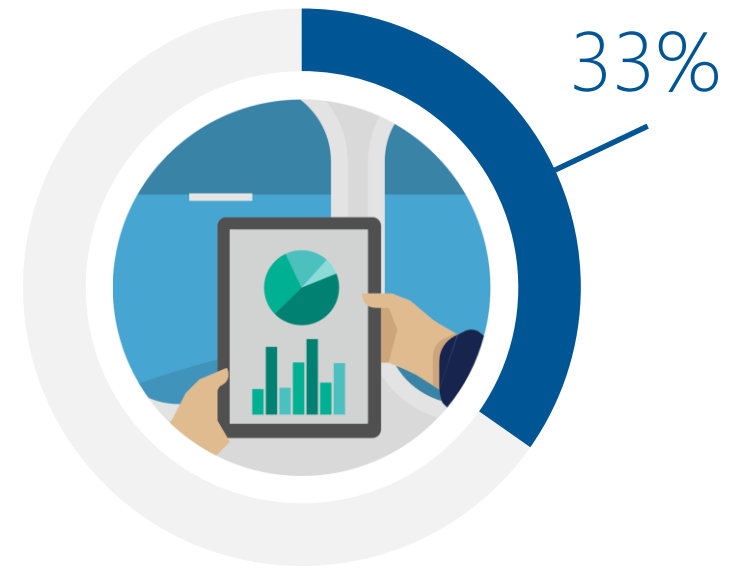
Mobilidade é o normal



dos empregados usando dispositivos pessoais para fins de trabalho.*



de todos os softwares estarão disponíveis via SaaS até 2020.**



dos empregados que trabalham normalmente nas instalações da entidade patronal, também frequentemente trabalham longe de suas mesas.***

*CEB The Future of Corporate ITL: 203-2017. 2013.

**Forrester Application Adoption Trends: The Rise Of SaaS

***CEB IT Impact Report: Five Key Findings on Driving Employee Productivity Q1 2014.

2005...

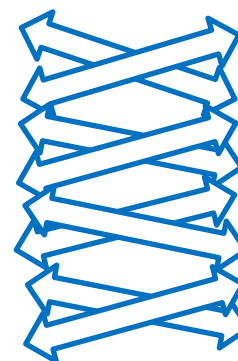
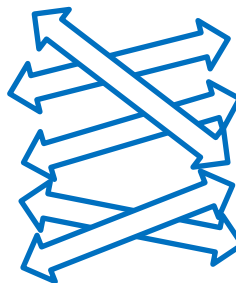
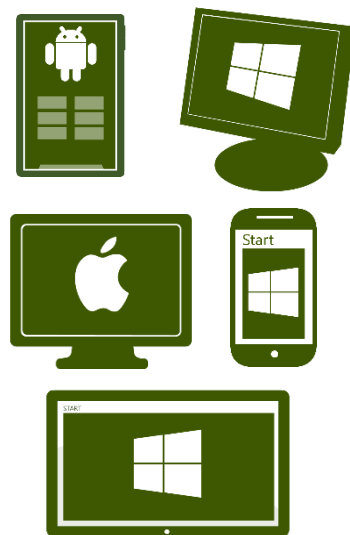
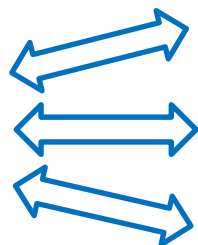
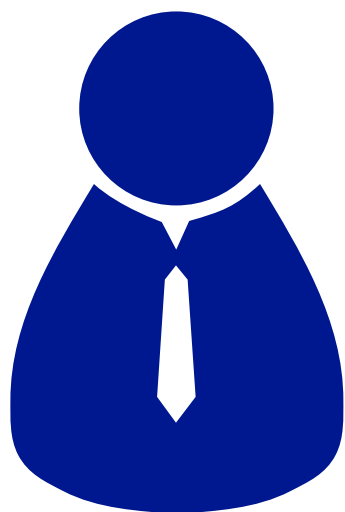


2013...





Desafios atuais



Usuários

Os usuários esperam ser capazes de **trabalhar em qualquer local** e ter acesso a todos os seus recursos de trabalho.

Dispositivos

A **explosão de dispositivos** está desgastando a abordagem da TI corporativa baseada em padrões.

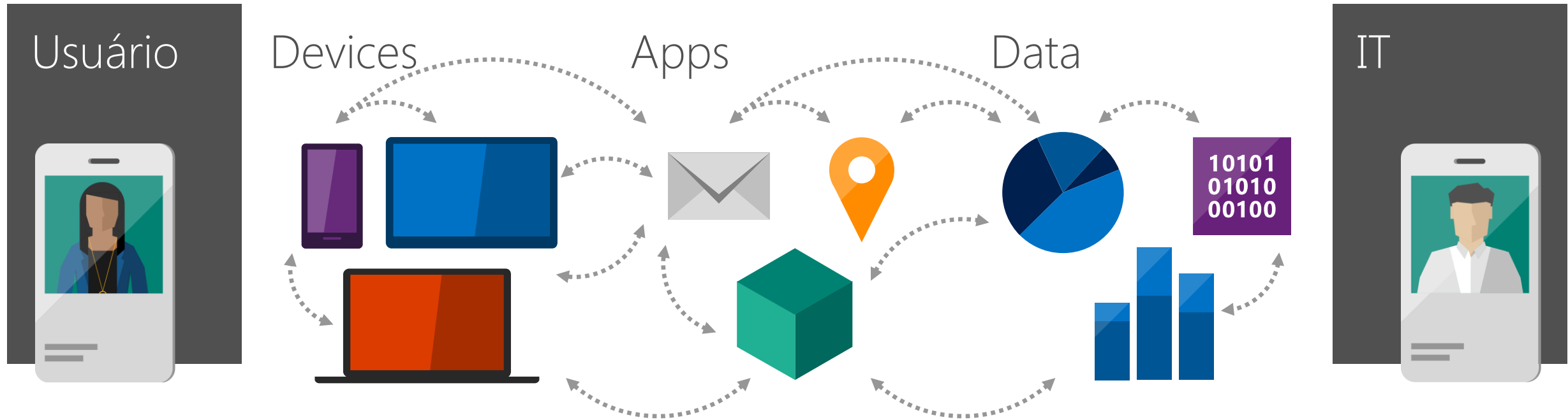
Aplicativos

Implantar e gerenciar os aplicativos **em todas as plataformas** é difícil.

Dados

Os usuários precisam ser produtivos e, ao mesmo tempo, **manter a conformidade e reduzir os riscos**.

Transformação



Permitindo a TI centrada em pessoas



Habilite os usuários

Permita que os usuários trabalhem nos dispositivos que desejam e forneça acesso consistente aos recursos corporativos.

Proteja seus dados

Ajude a proteger as informações corporativas e gerencie o risco.

Unifique seu ambiente

Forneça um gerenciamento de dispositivos e de aplicativos unificado na infraestrutura local e na nuvem.

Cloud

Permitindo que você use uma nuvem híbrida, no seu próprio ritmo



A TI que a sua
demanda
precisa...



Com o melhor
uso da
infraestrutura
atual...



...para
entregar a
melhor
experiência.

Public

 Office 365

 Microsoft
Dynamics CRM Online

 Windows Intune

 Windows Azure

Common
technologies

Identity ▪ Virtualization ▪ Management ▪ Development

Private

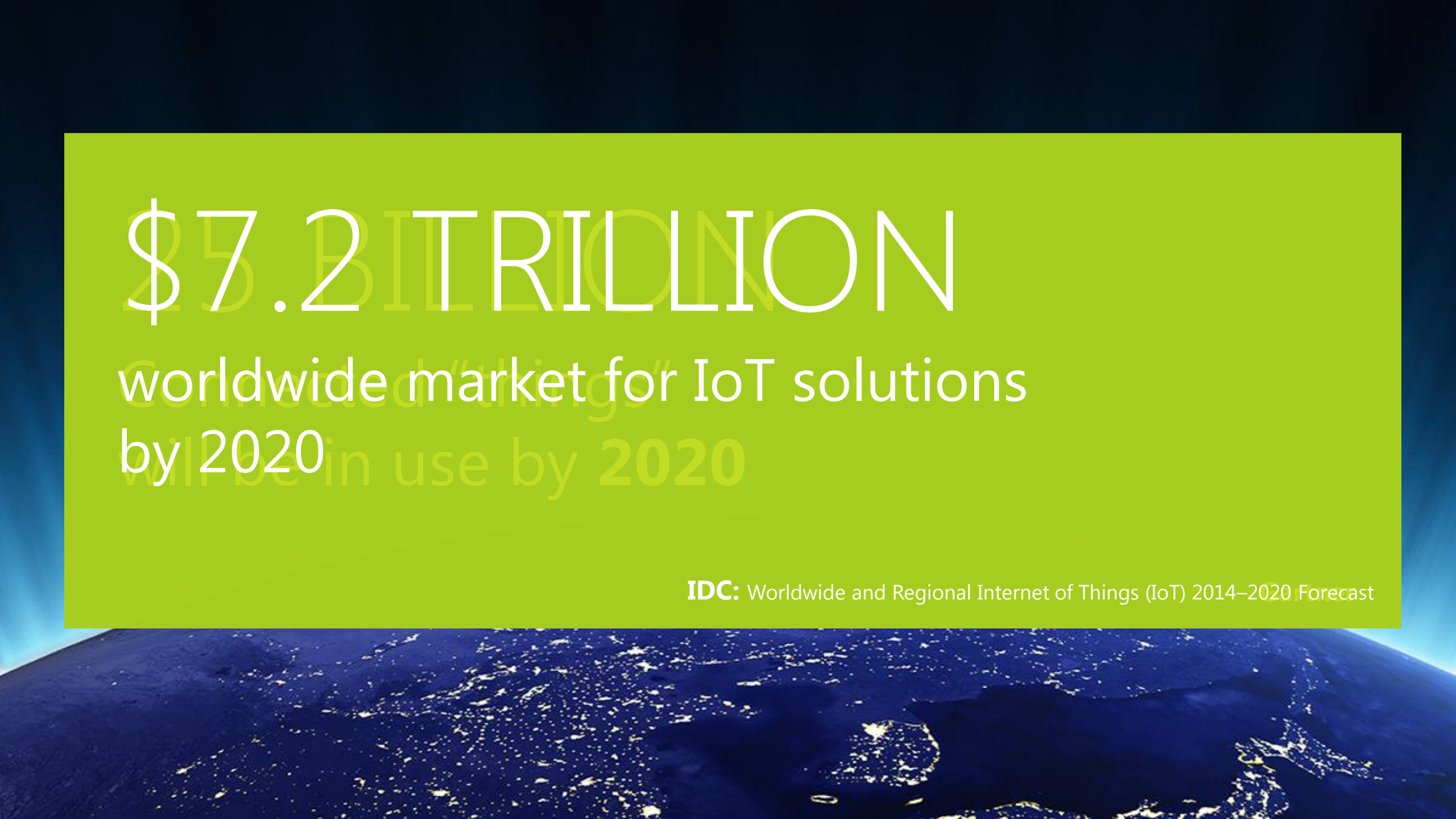
 Office

 Microsoft Dynamics

 Microsoft
SQL Server

 Windows Server

 Microsoft
System Center

The background of the slide is a high-resolution image of Earth as seen from space, showing the curvature of the planet, blue oceans, and white cloud patterns. A large, semi-transparent lime green rectangle is overlaid on the upper portion of the image, serving as a background for the text.

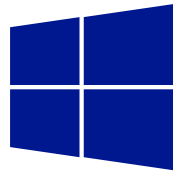
\$7.2 TRILLION

worldwide market for IoT solutions
by 2020

IDC: Worldwide and Regional Internet of Things (IoT) 2014–2020 Forecast

Microsoft IoT

Comprehensive solutions from device to cloud



Windows



IoT Editions Power a Broad Range of Devices

20 years of history in embedded devices

One Windows platform for all devices

Enterprise-ready, Maker-friendly

Designed for today's IoT environments

Free IoT Core edition!

Cloud-Based IoT Services & Solutions

Easy to provision, use and manage

Pay as you go, scale as you need

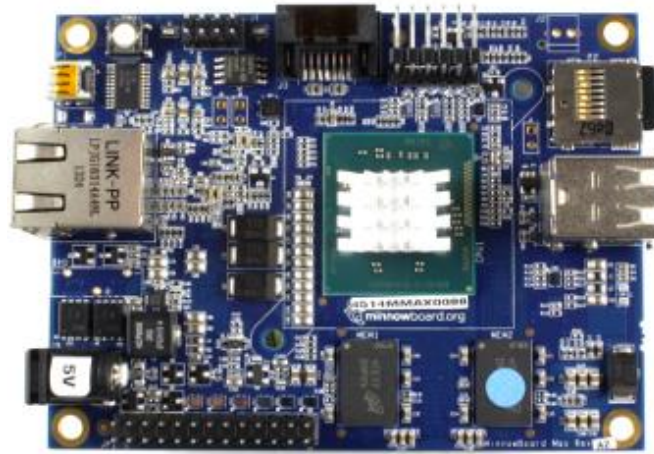
Global reach, hyper scale

End-to-end security & privacy

Windows, Mbed, Linux, iOS, Android, RTOS support

Announcing!

Windows 10 IoT Core preview available
for Minnowboard Max and Raspberry Pi 2



www.windowsondevices.com

Vacas Conectadas





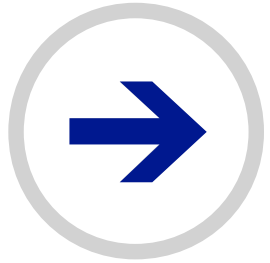
video courtesy of Fujitsu and MTN

As vacas precisam dar
10.000 passos por dia?

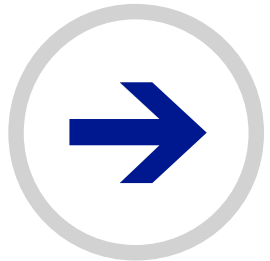
Toda empresa é
uma empresa de
dados...



O que um
fazendeiro pode
fazer...

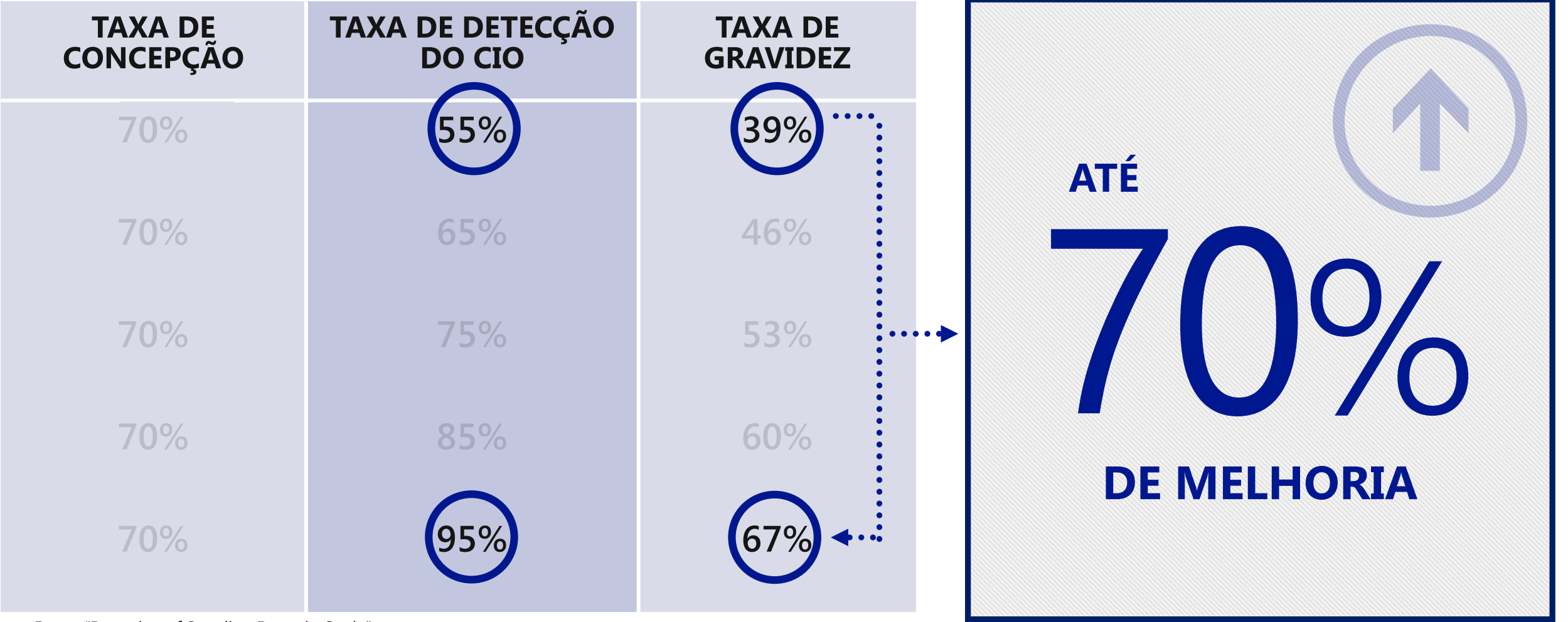


Detectar problemas de saúde para evitar perdas



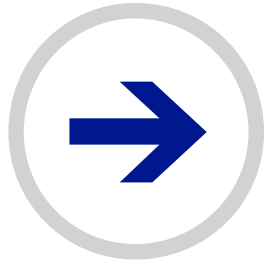
Melhorar a produção de gado pela detecção precisa do cio

Efeito da taxa de detecção do cio na crescente taxa de gravidez

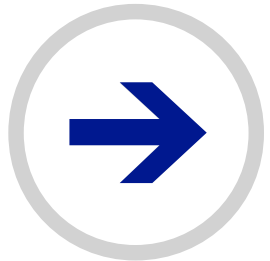


Fonte: "Detection of Standing Estrus in Cattle"
FS921B – George Perry, Beef Reproduction and Management Specialist Animal and Range Sciences Department

Mas isso é difícil...



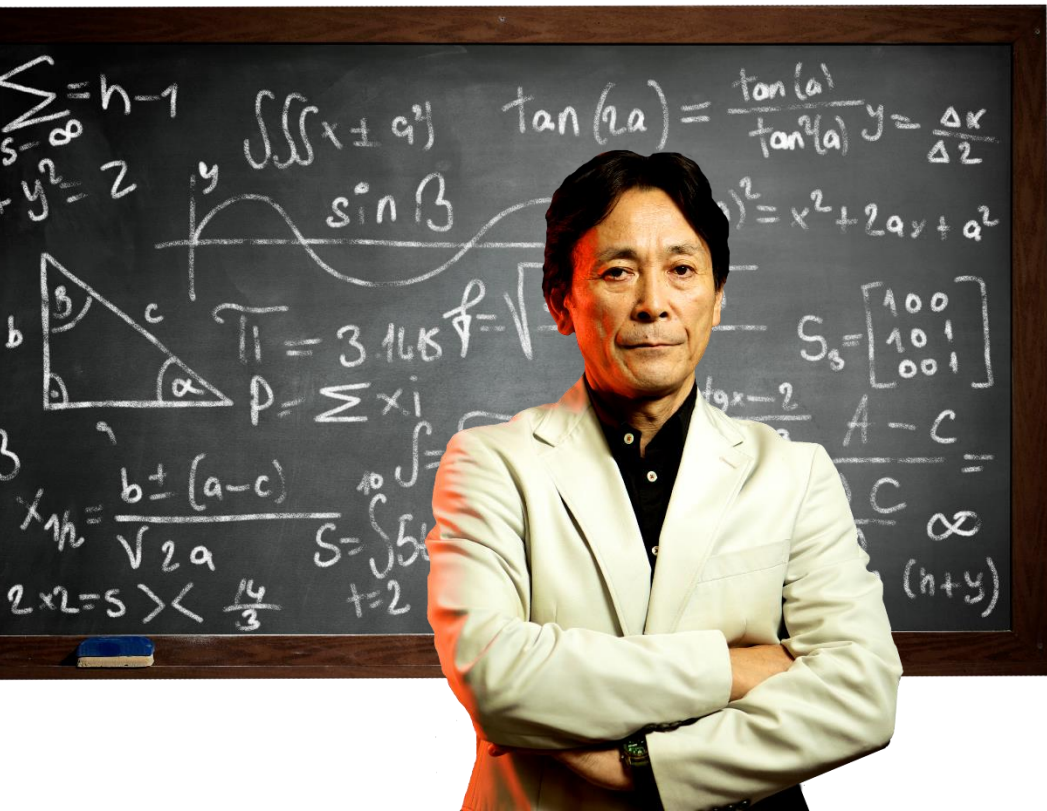
O cio dura apenas 12-18 horas a cada 21 dias

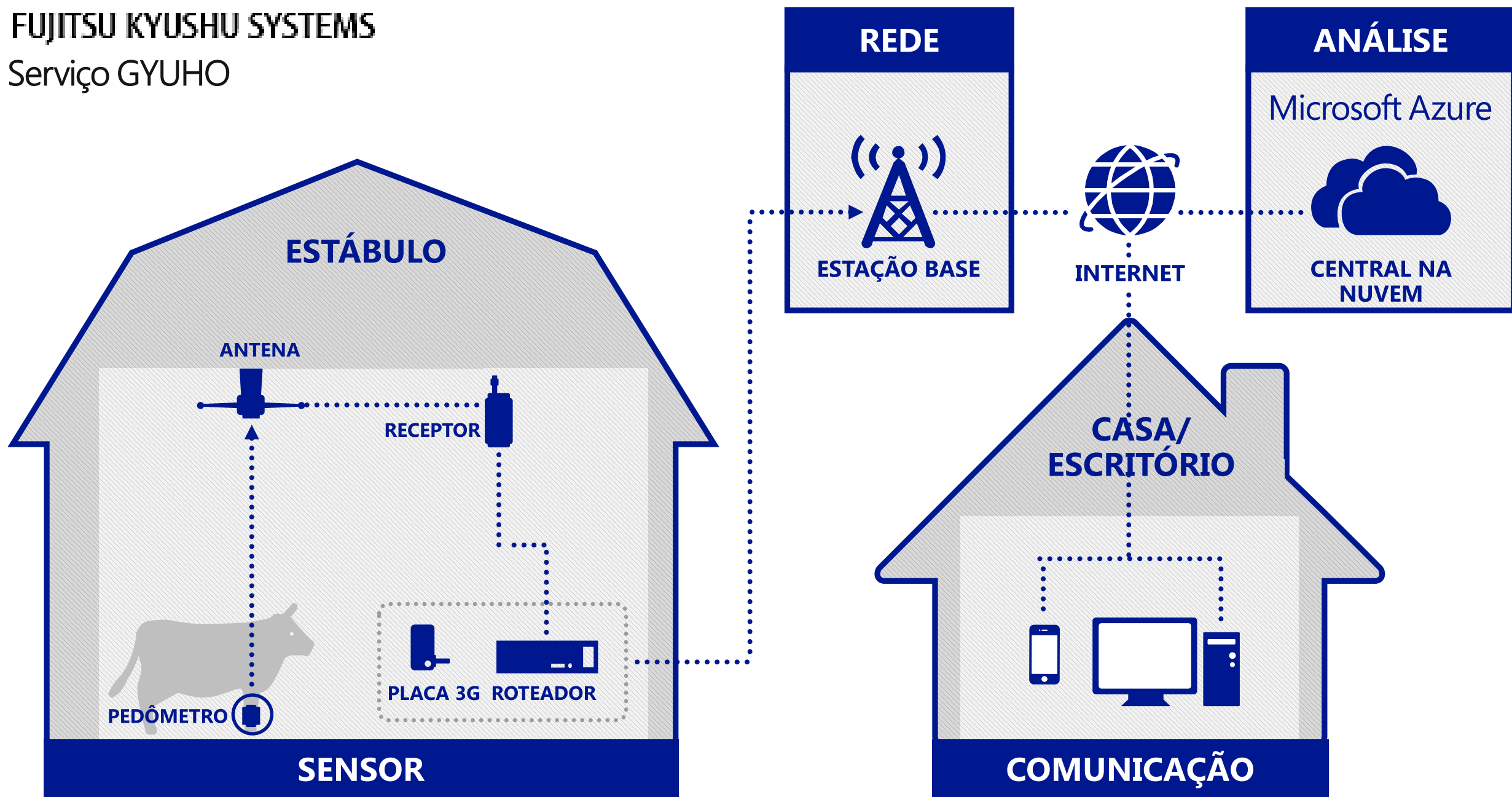


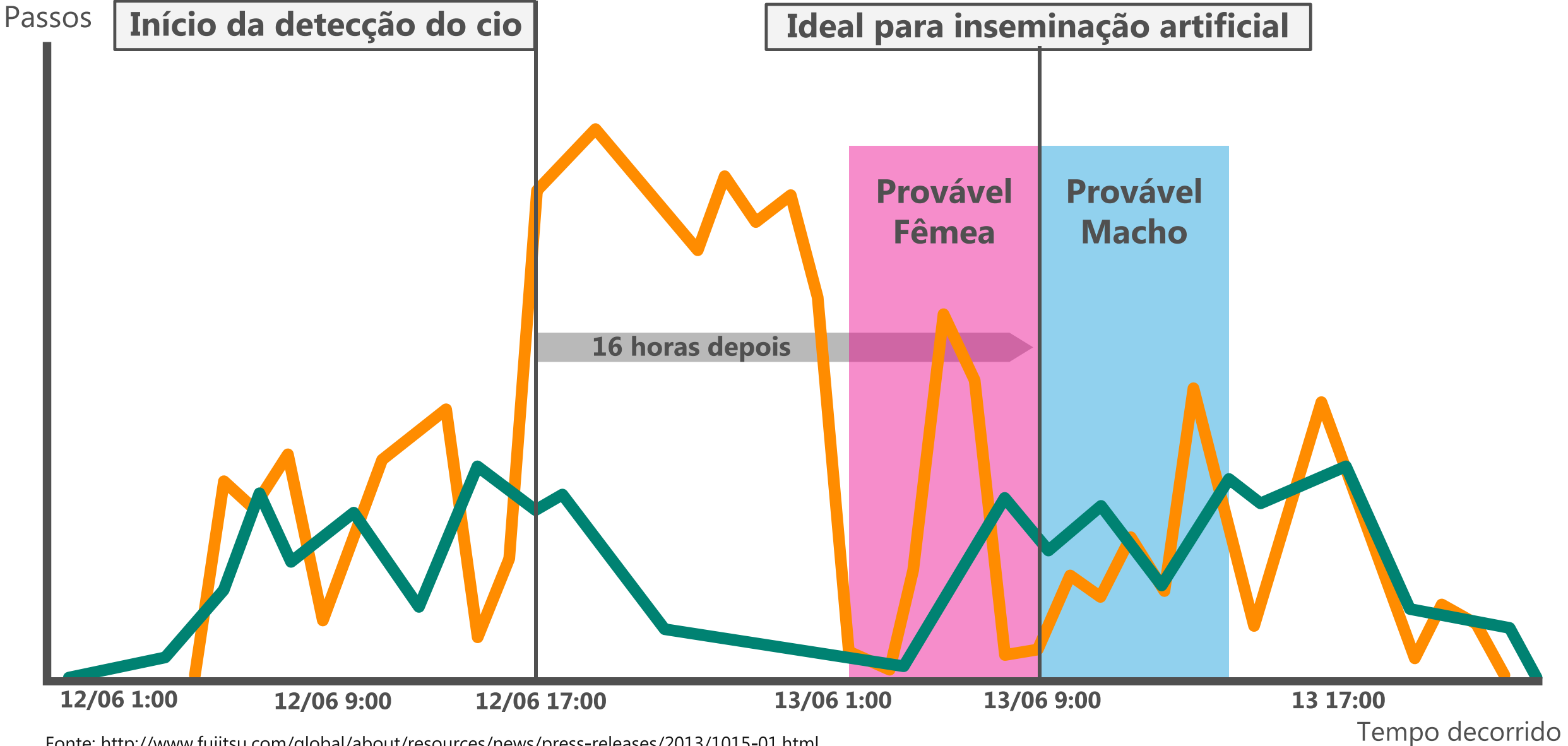
Ocorre geralmente entre 22:00 e 08:00



Como os fazendeiros podem
dizer qual a hora certa para
centenas de vacas?







Fonte: <http://www.fujitsu.com/global/about/resources/news/press-releases/2013/1015-01.html>

“Em Deus eu confio,
mas todos os outros
trazem dados”

– W. Edwards Deming

Efeitos econômicos antes e depois de utilizar o sistema Fujitsu GYUHO em 11 fazendas de gado

STOCK FARMER NAME	BREEDING NUMBERS	BEFORE GYUHO INTRODUCTION		AFTER GYUHO INTRODUCTION		SHORTENED DAYS	ANNUAL PRODUCTION INCREASED HEADS	ANNUAL INCREASE IN %	INCOME INCREASE BY PRODUCTION INCREASE JPY350,000/ CATTLE (♂・♀ AVERAGE)
		DAYS-OPEN	INTRAPARTUM INTERVAL	DAYS-OPEN	INTRAPARTUM INTERVAL				
1 A STOCK FARMER	180	78	363	63	348	15	8	4%	2,800,000
2 B STOCK FARMER	262	74	359	59	344	15	12	5%	4,200,000
3 C STOCK FARMER	110	96	377	66	351	26	8	7%	2,800,000
4 D STOCK FARMER	202	54	339	40	330	9	6	3%	2,100,000
5 E STOCK FARMER	498	78	363	51	336	27	40	8%	14,000,000
6 F STOCK FARMER	201	154	439	74	359	80	37	18%	12,950,000
7 G STOCK FARMER	537	115	400	62	347	53	75	14%	26,250,000
8 H STOCK FARMER	273	217	502	66	351	151	85	31%	29,750,000
9 I STOCK FARMER	173	137	422	67	352	70	29	17%	10,150,000
10 J STOCK FARMER	248	83	368	50	335	33	24	10%	8,400,000
11 K STOCK FARMER	151	102	387	69	354	33	13	9%	4,550,000
AVERAGE	258	108	393	61	346	47	31	12%	10,722,727



