TOPCON

Welcome to Topcon Group

Ray Vallejo

Chief Operating Officer

Topcon Positioning Group

Pleasanton
Solution Center
and Demo Site
TOPCON
TOPCON
TOPCON
TOPCON
TOPCON
Welcome to Topcon
Livermore Campus

WELCOME TO TOPCON

Topcon boasts a global development, manufacturing and support network that is talent rich and interconnected.

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TOPCON POSITIONING GROUP POC

- Responsible for creating and distributing all GNSS, construction automation and precision agriculture solutions,
- Specialize in unique technologies that elevate the productivity of its customers.

SOKKIA

NORAC TOPCON POSITIONING GROUP

WACHENDORFF Elektronik TOPCON POSITIONING GROUP

DIGI★STAR TOPCON POSITIONING GROUP

RDS TECHNOLOGY TOPCON POSITIONING GROUP

TOPCON Agriculture

TIERRA |TELEMATICS DESIGN|

1900+ EMPLOYEES

Largest Revenue Group within Topcon

600+ ENGINEERS

90+ PhD's

28 GLOBAL LOCATIONS

Vision

INNOVATION & GROWTH for the PRECISE POSITIONING MARKETS

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GLOBAL MEGATRENDS

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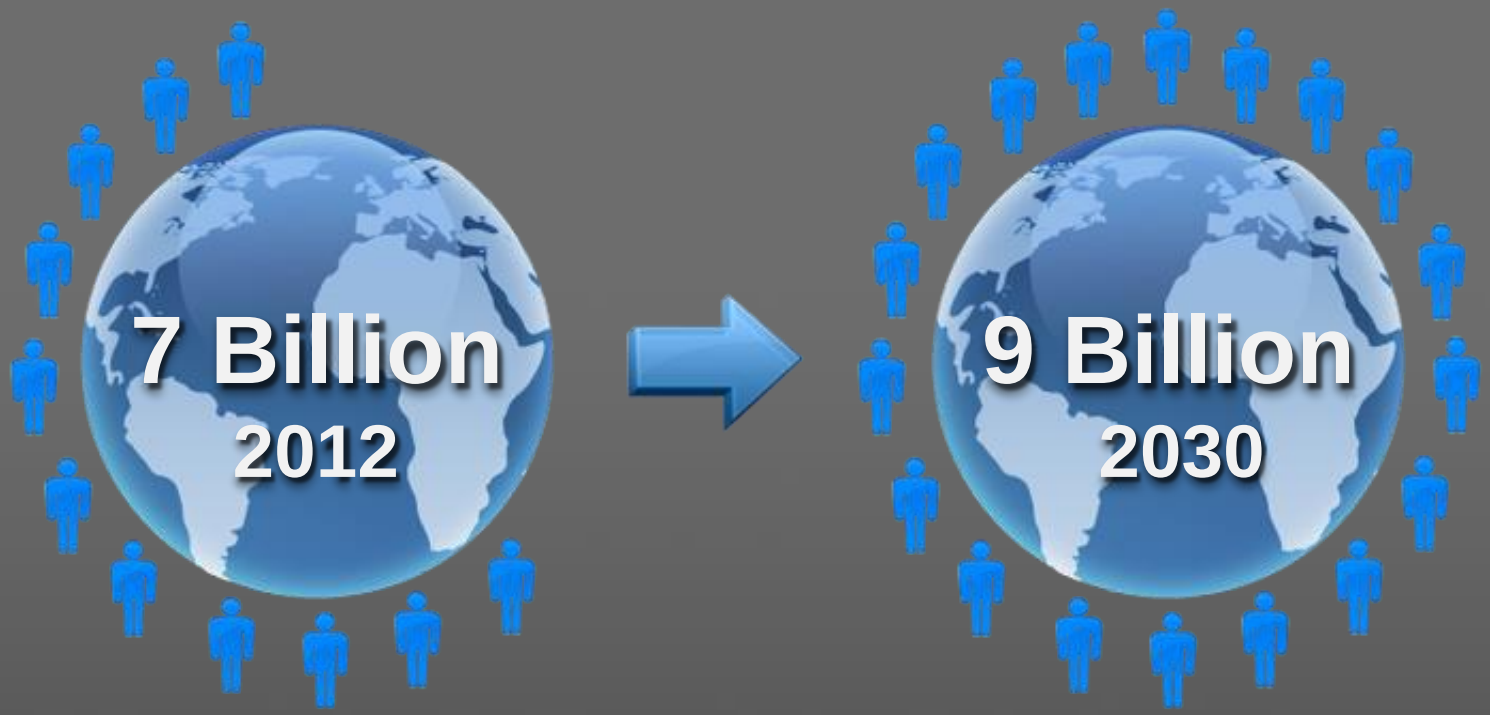

GLOBAL population DRIVERS

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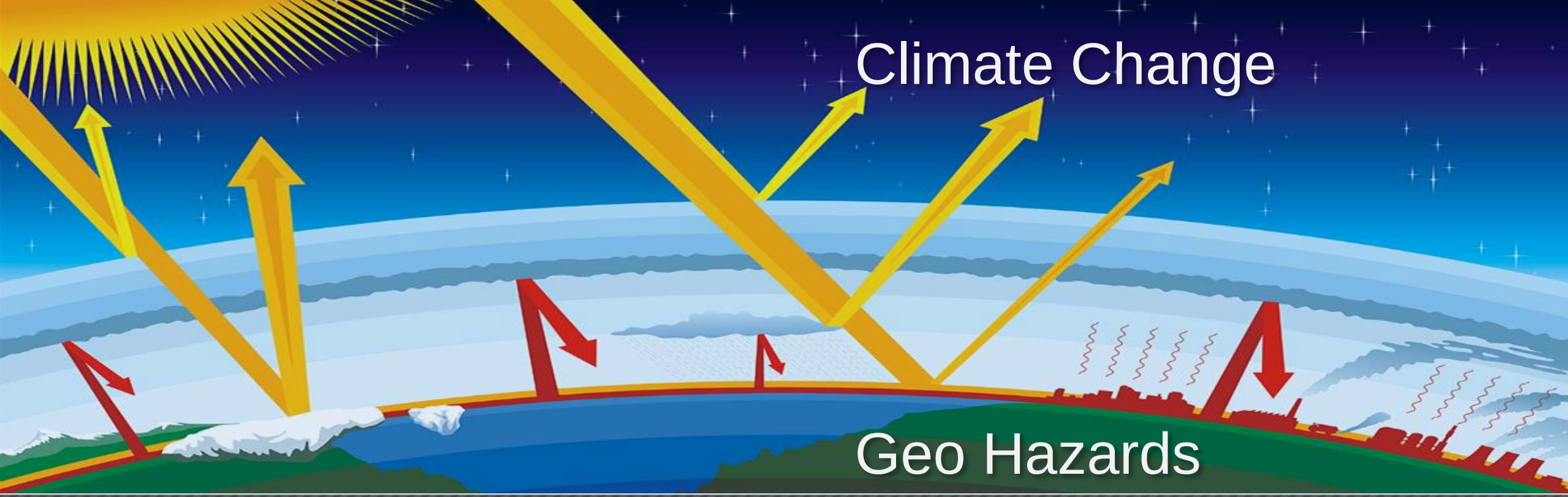

GLOBAL
environmental
DRIVERS

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GLOBAL infrastructure DRIVERS

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SHAPING the EARTH

Construction

One of the **world's largest*** manufacturing industries, and the **least automated**. ($9-10T Globally)

*Combination of public construction, private non-residential construction, and S&L street and highway construction in US about $2.6T. Estimated 9-10T globally.
Source: ARTBA analysis of data provided by AEM Economic Indicators report – May 2014

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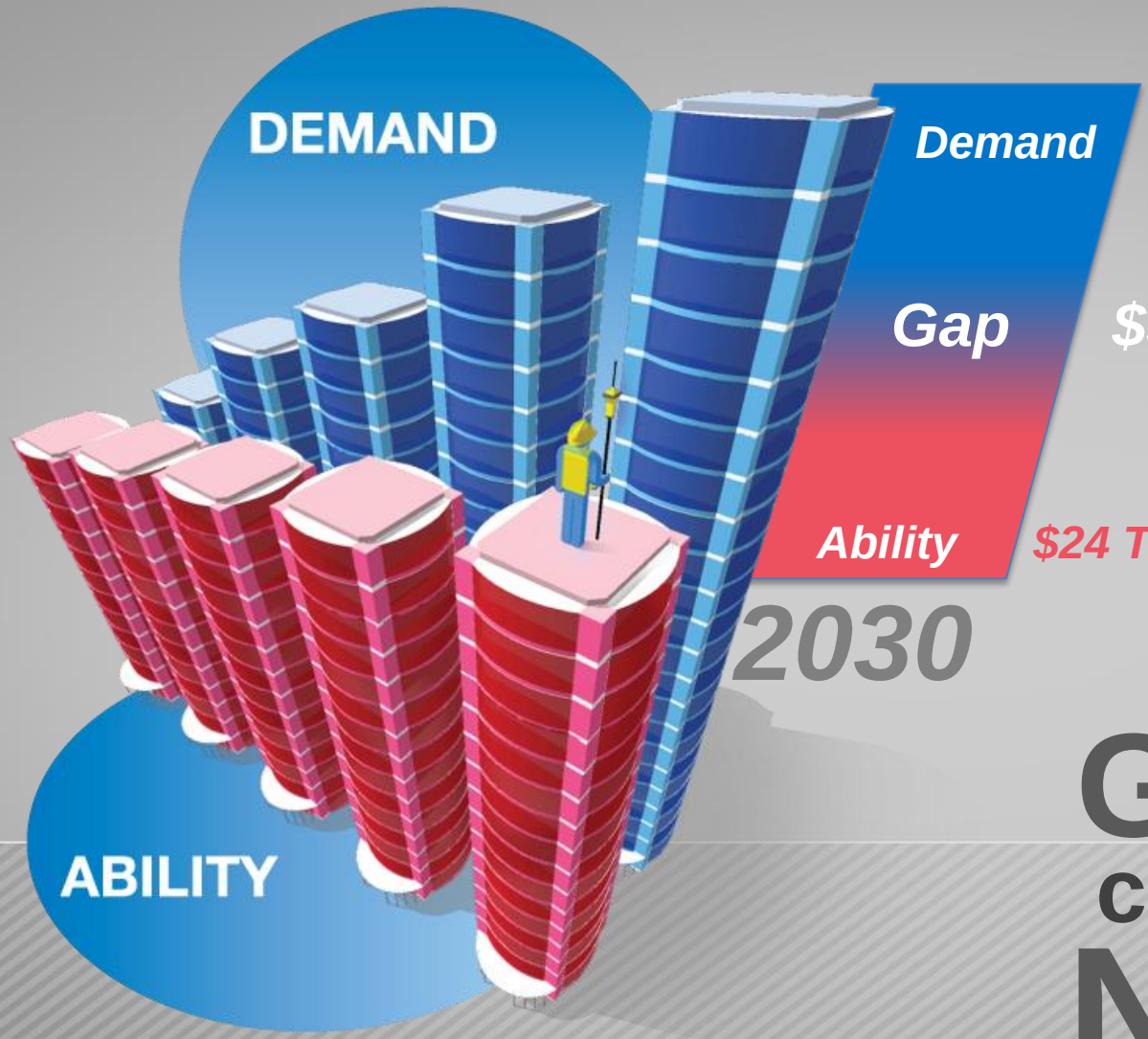

Demand $60 Trillion (USD)

Gap $36 Trillion (USD)

Ability $24 Trillion (USD)

2030

GLOBAL construction NEEDS

Source: Standard and Poor's analysis 2011, incl 3% yearly inflation rate

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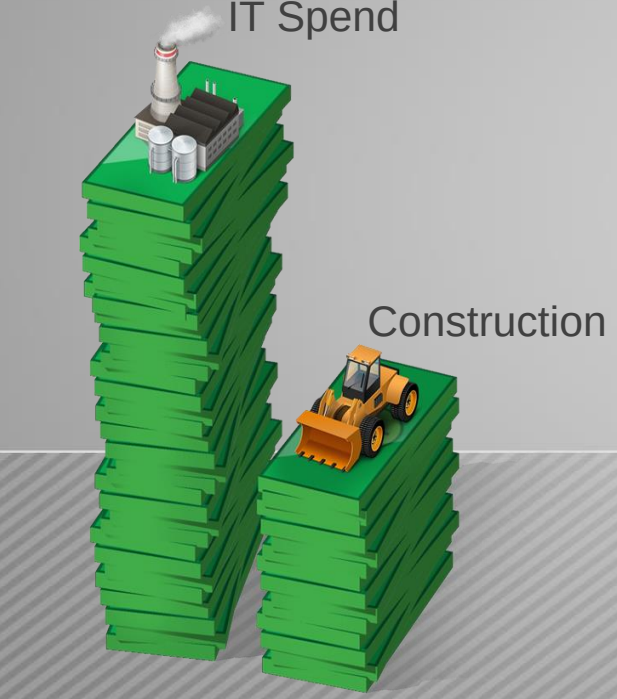

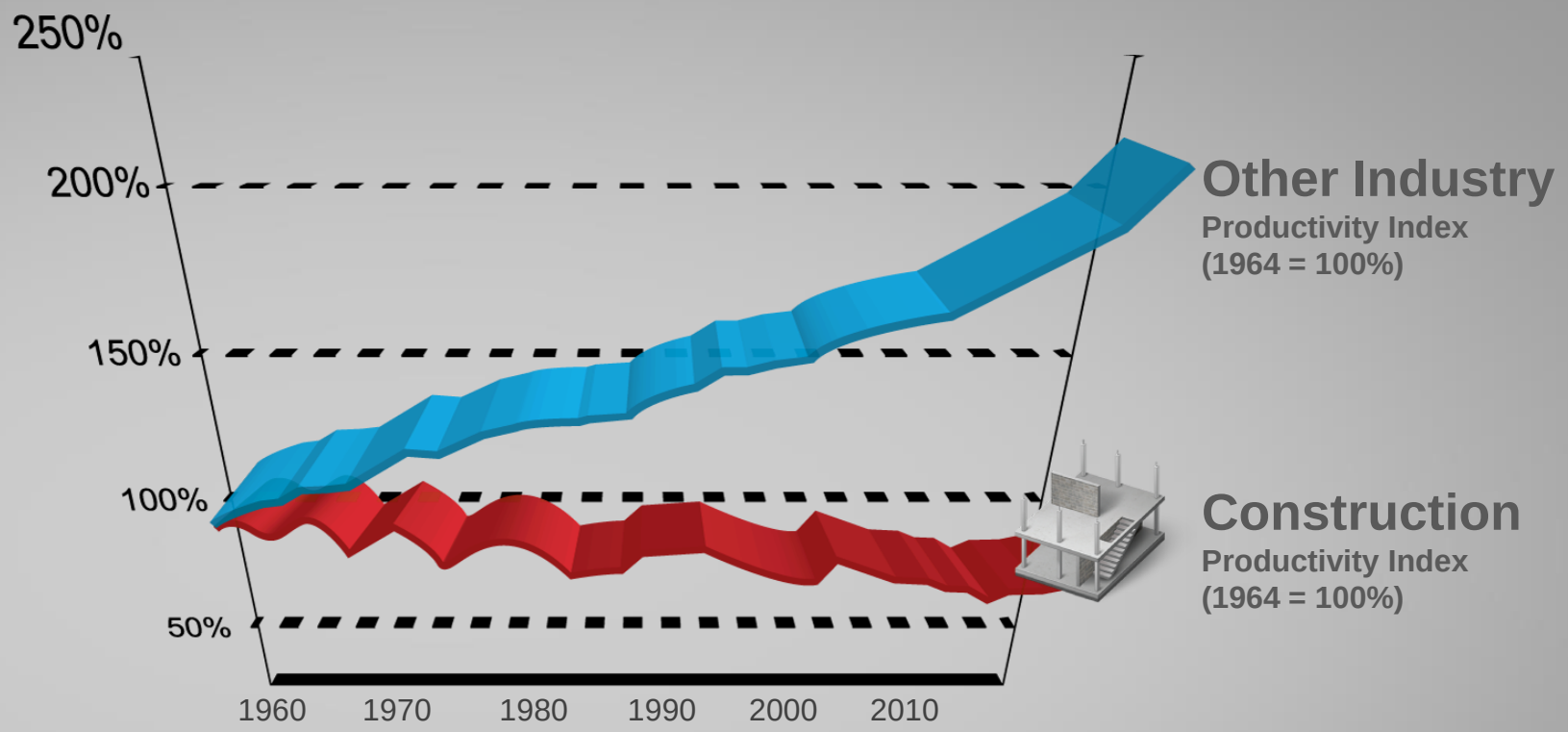

PRODUCTIVITY and AUTOMATION In CONSTRUCTION

Source: P. Teicholz Ph.d, Stanford University, 2011

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20% of construction expense is caused by mistakes.

Poor planning
Wrong and excess materials
Poor communication
Rework

GLOBAL WASTE REDUCTION NEEDS

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FEEDING the EARTH

Agriculture

One of **world's largest manufacturing** industries

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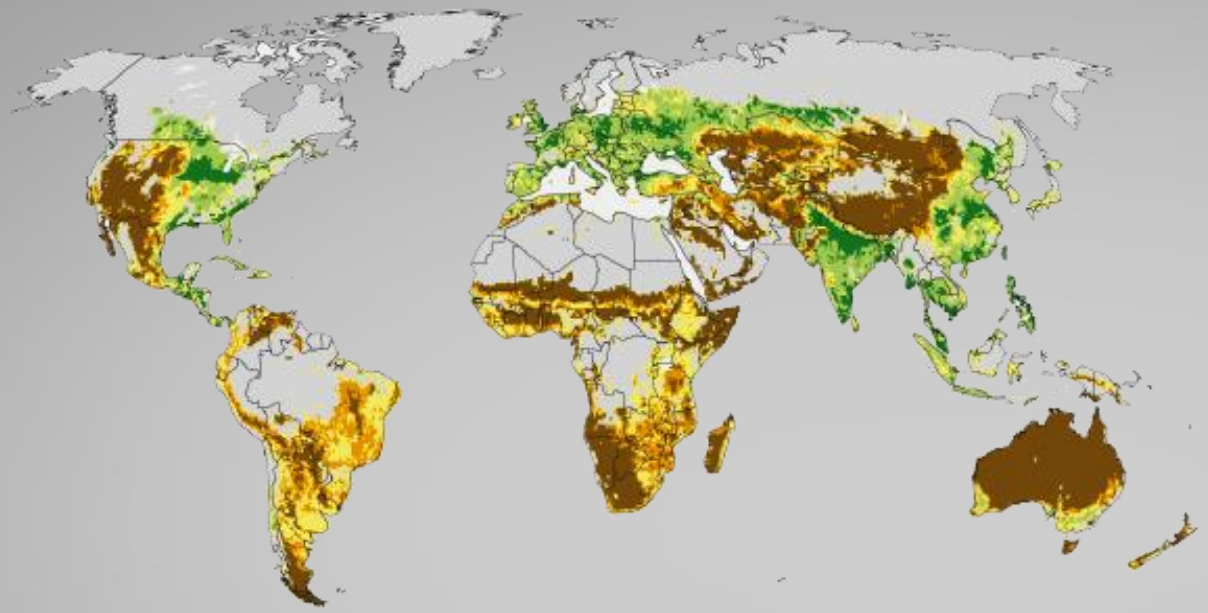

GLOBAL agriculture NEEDS

No more space to grow more

Precision Ag / GPS well accepted

30% waste in every part of food production cycle

Source: United Nations Food & Agriculture

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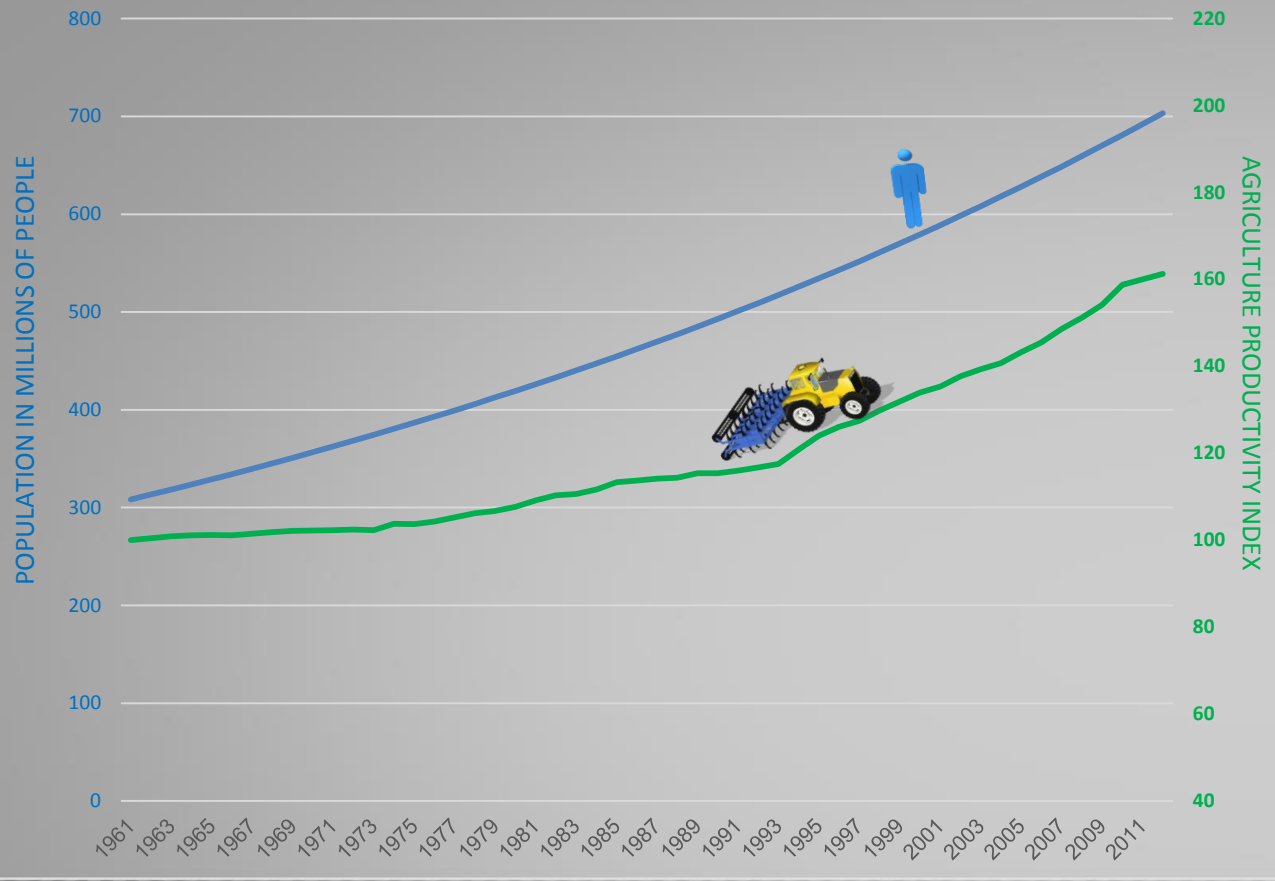

Over 2000 crop acres are being lost per day in North America and western Europe due to development.

Productivity per acre must continue to increase.

DEVELOPED ACREAGE SQUEEZE

Source: USDA Economic Research Service

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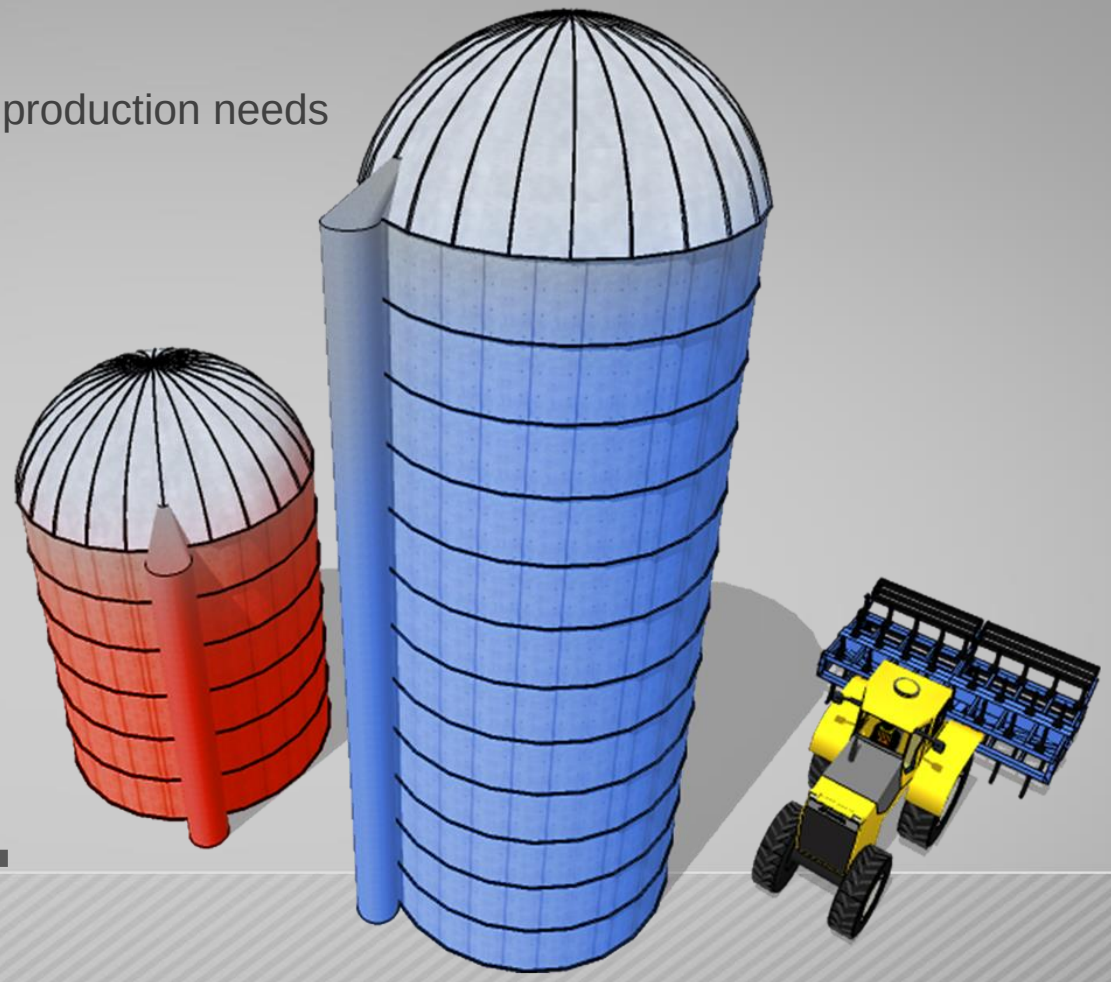
2030 crop production needs

2013 crop production



GLOBAL agriculture NEEDS

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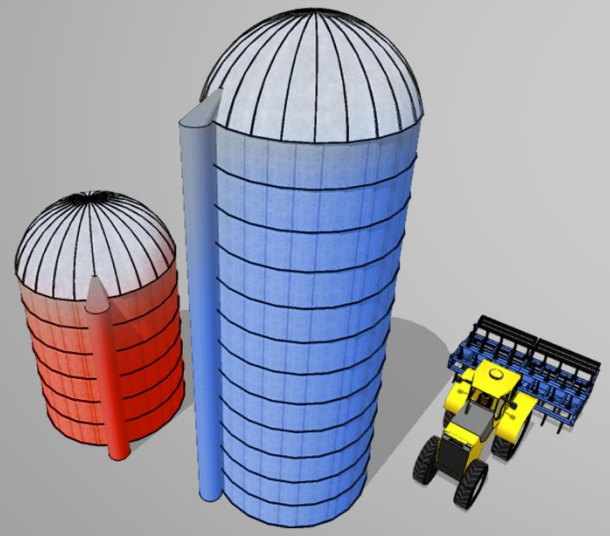
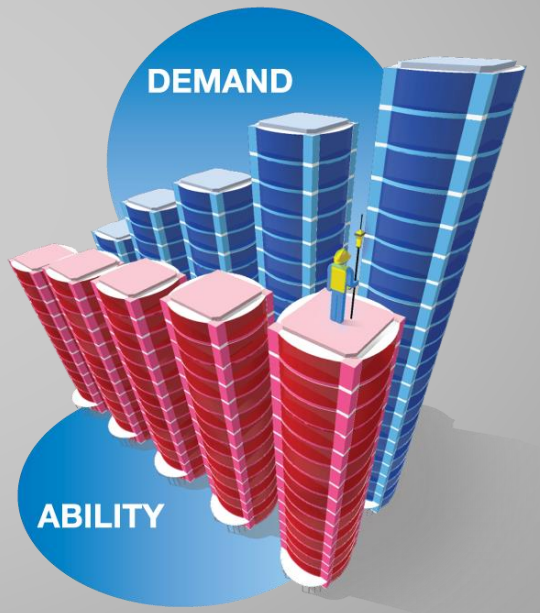
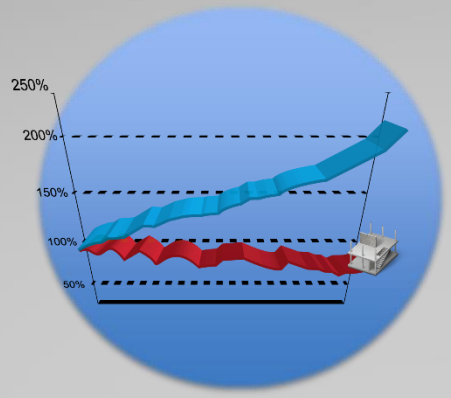
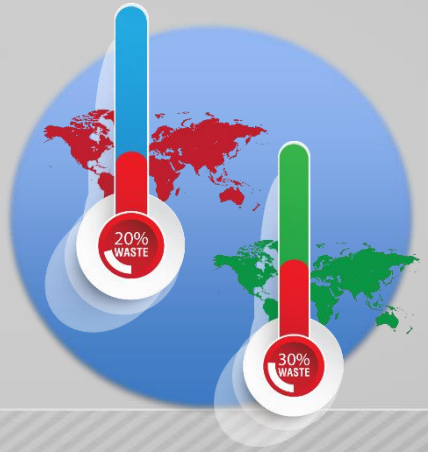
WE ARE IN SOME BIG MARKETS THAT NEED TO IMPROVE EFFICIENCY RAPIDLY





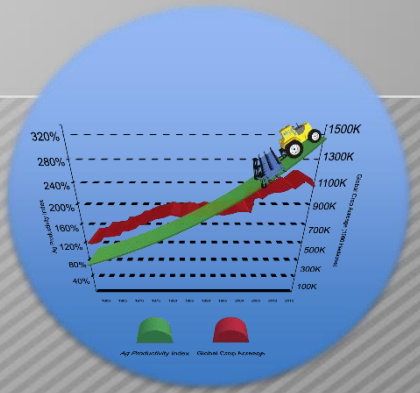




TECHNOLOGY

to bridge the

GAPS



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Intelligent Cities

Connected physical & social infrastructure

Sustainable, no waste

INITIATIVES
to accelerate
AUTOMATION

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Intelligent Farms

‘Farm to Fork’ traceability

Optimize yields

INITIATIVES
to accelerate
AUTOMATION

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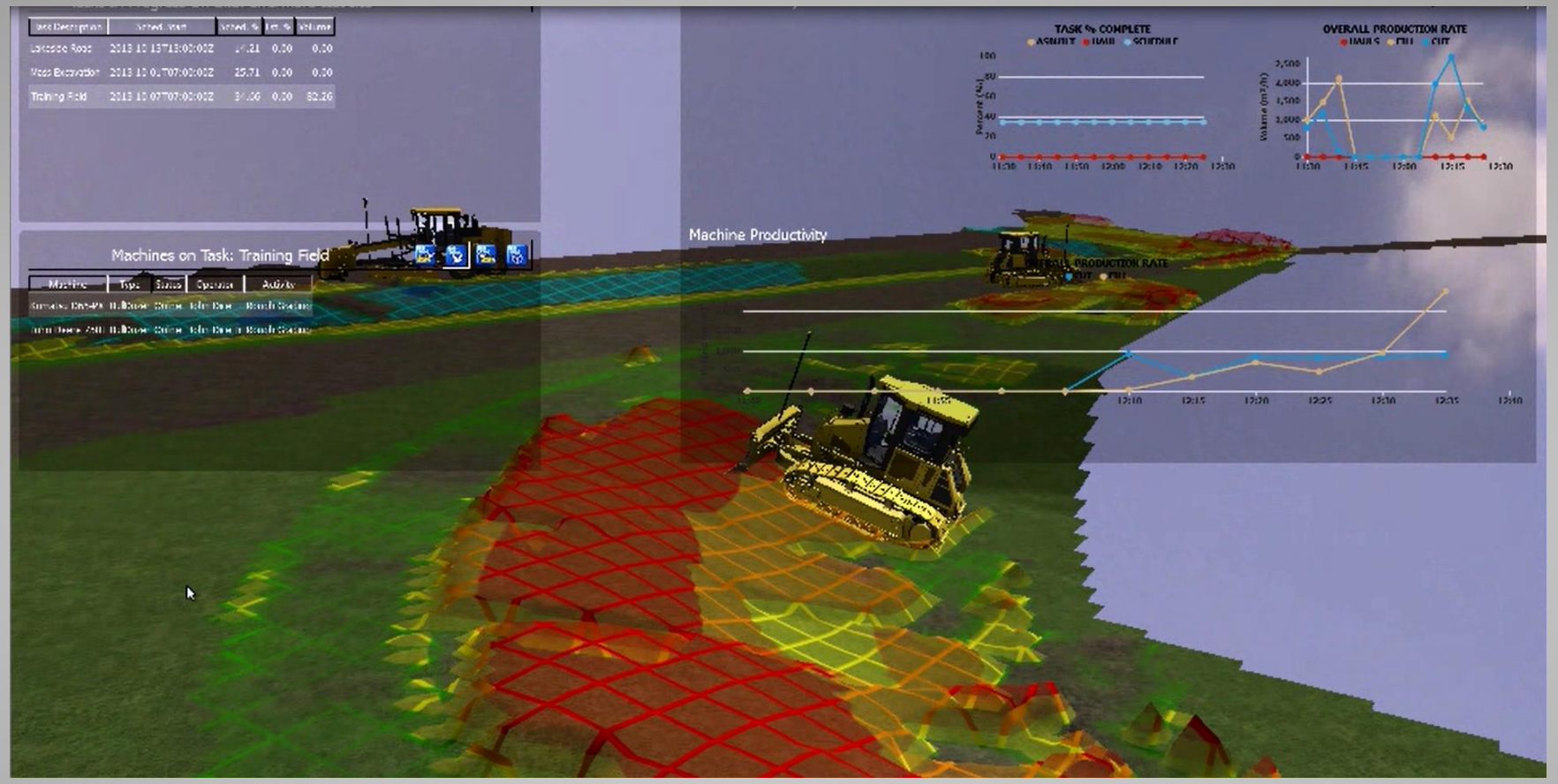
ENTERPRISE SOLUTIONS



Construction Promotional Video clip

Bamburgh Castle – United Kingdom
“Continuous Representation of Reality” Video clip

All sensors can be combined to provide information to create 3D environment in (near real time)

Topcon Precision Ag Solutions Video clip

Complete precision ag solutions for a wide variety of applications.