Geographical Information
the next 10 years

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November, 2016

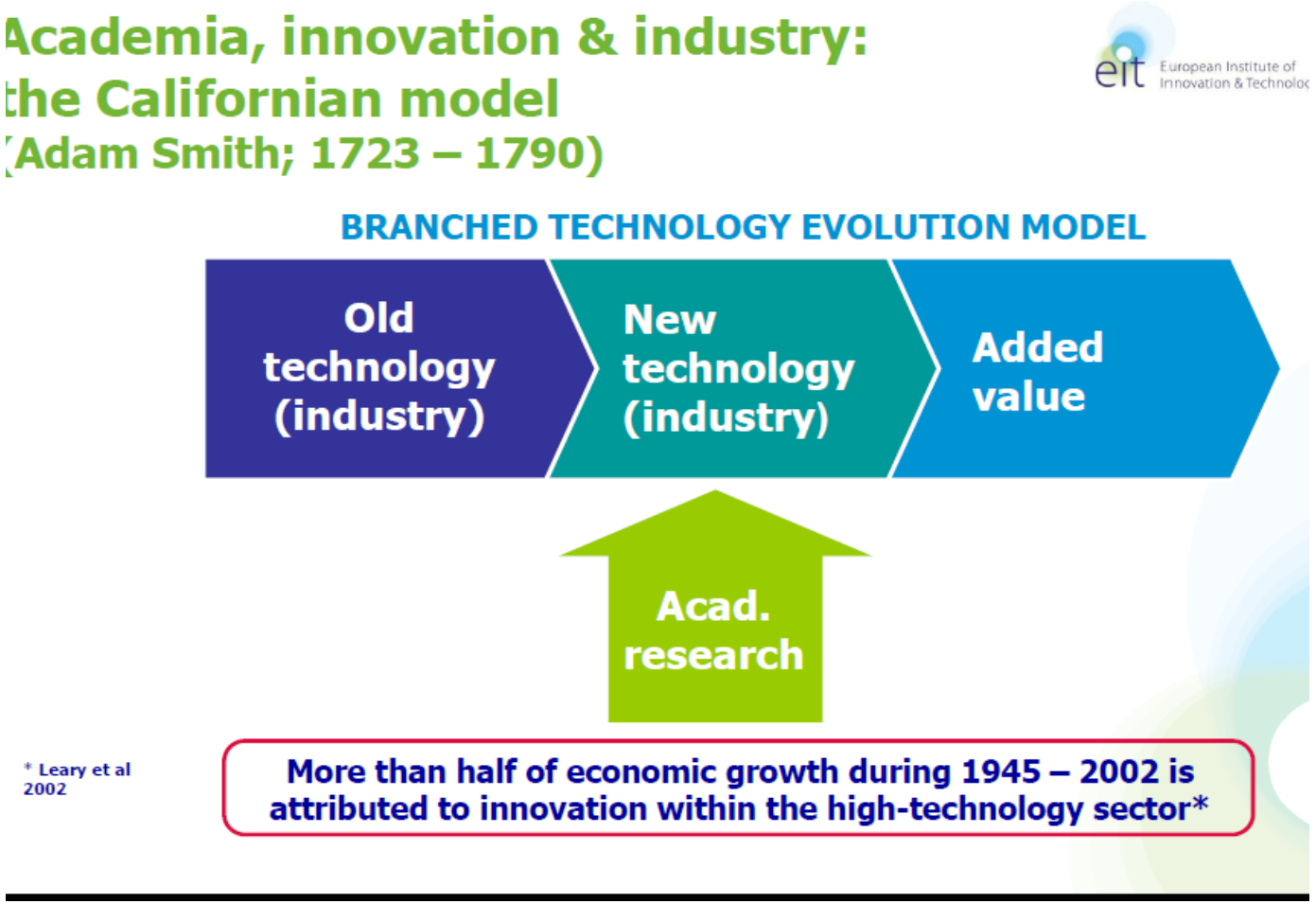
Linear model

Academia, innovation & industry – traditional model (Francis Bacon; 1561 – 1626)

eit European Institute of Innovation & Technology

LINEAR TECHNOLOGY EVOLUTION

Californian model



Parallels

Silicon's Valley model

Angel funded start-ups

User Traction
VC Backing

Billions of revenue
Winners

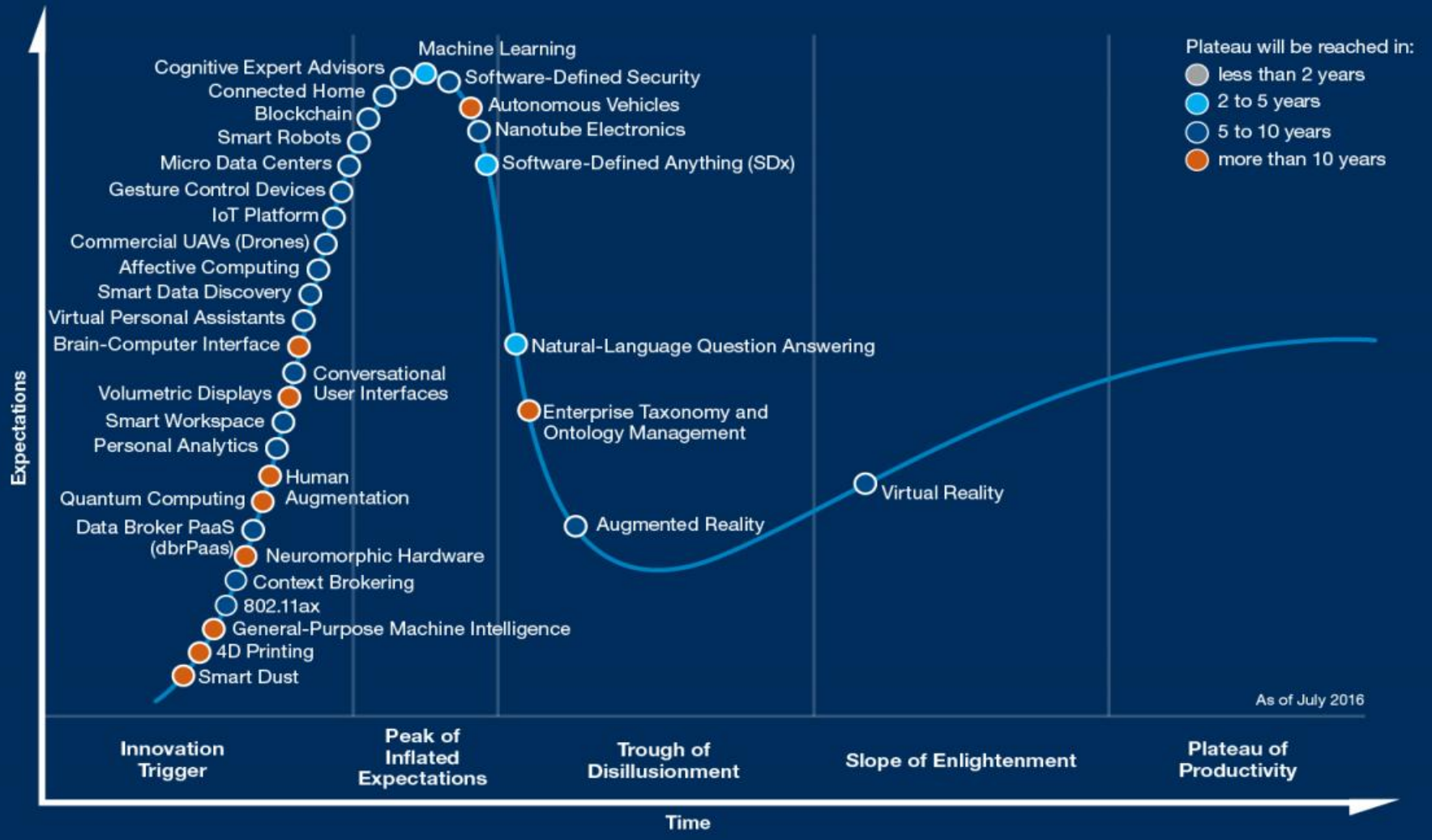
Picture Credits: [Ludwig Gatzke]

Parallels

Infrastructural Web companies are similar to geographical information infrastructures

They are platforms based on directories

Gartner Hype Cycle for Emerging Technologies, 2016



Source: Gartner

Gartner

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Data layer novelties

New local and remote physical, biological, chemical and optical sensors

3D sensors

360 degrees imagery sensors

Visible and invisible (radio frequency, infrared) emitters tagging the World

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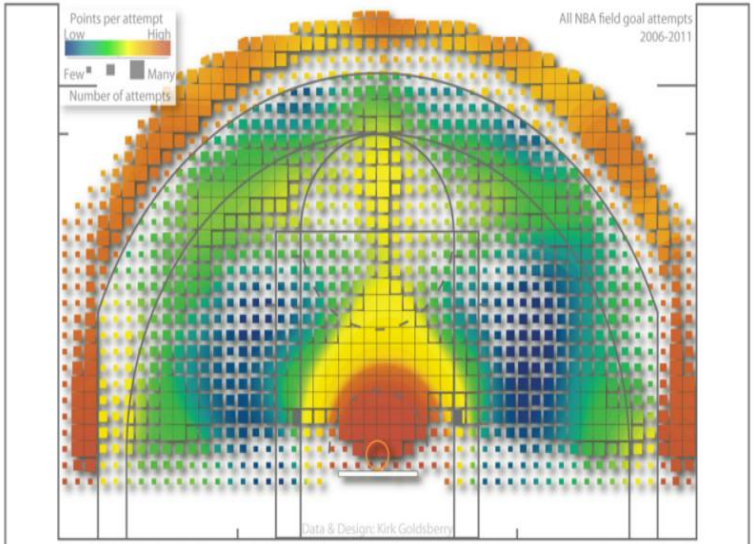
Analytical layer novelties

New sensor data fusion algorithms

New artificial intelligence based algorithms for image processing, knowledge discovery, and decision support

New spatial analytics for non-traditional geographical problems (i.e., sports science)



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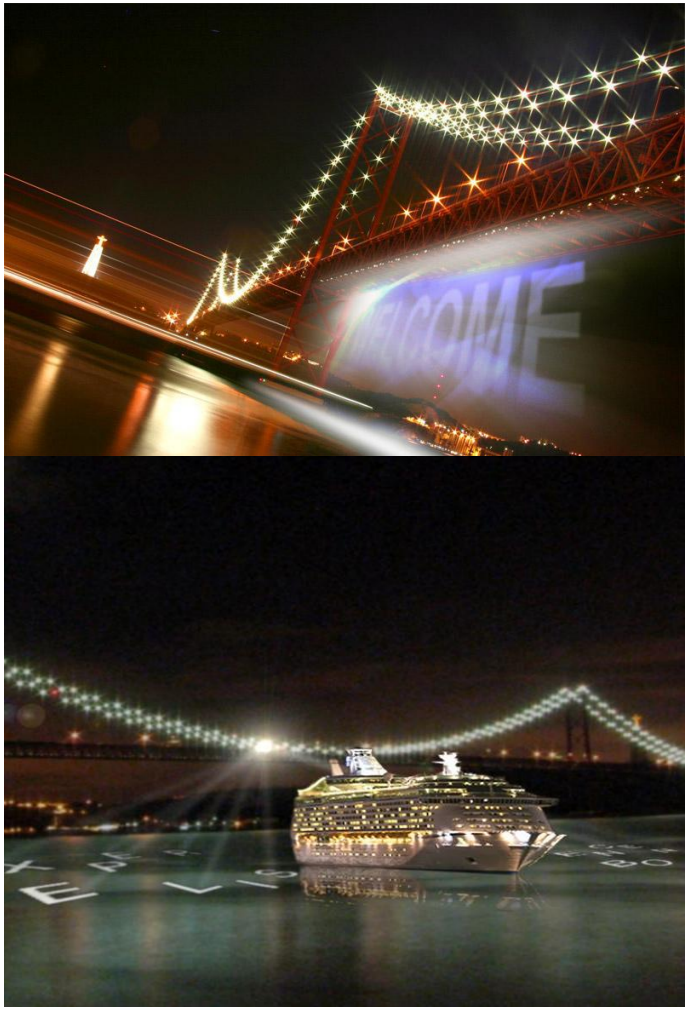
Visualization layer novelties

local visualizations and projections

AR visualizations using smartphones/glasses

holographic visualizations



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Visualization layer novelties

Virtual reality

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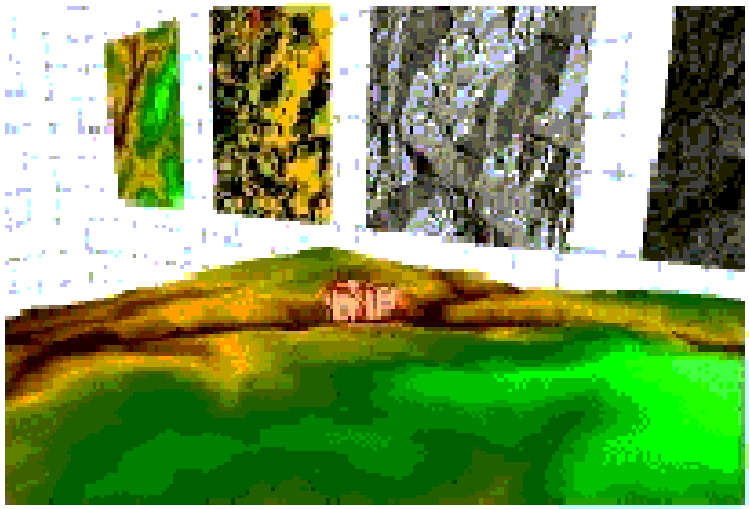
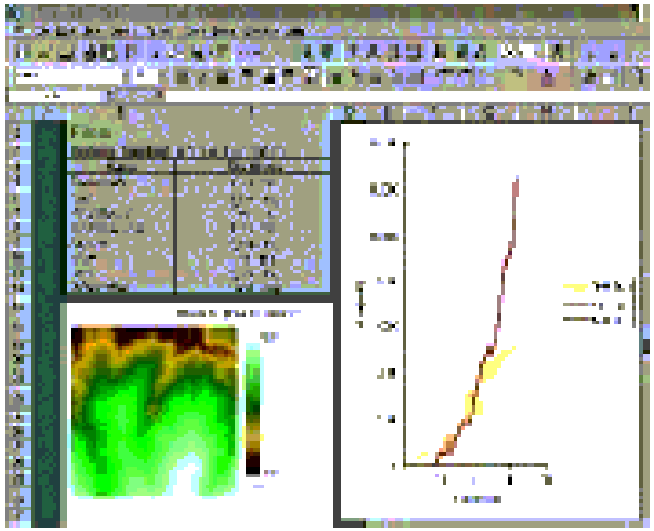
Visualization layer novelties

Virtual reality



(a)



(b)

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Visualization layer novelties

Virtual reality

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Spatial data infrastructures will become

Browsers for geographical data in time and space

Locally using mobile devices and augmented reality

Remotely using virtual reality