# Edward McLaughlin

**Vice Chairman, Innovolt,**
**CEO Valderus,**
**Board of Advisers, Continuum**

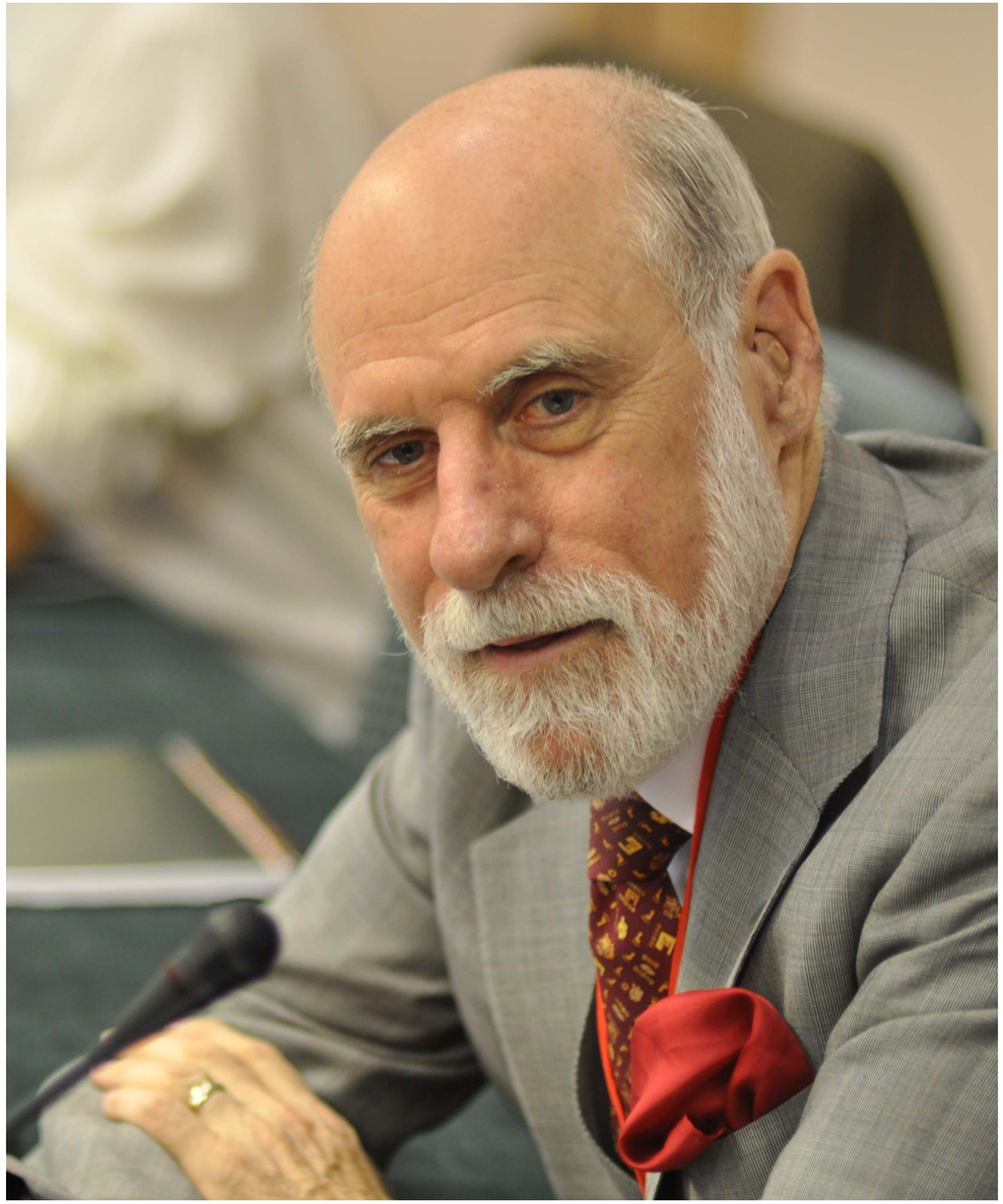
# A Vision for The Future of Our Industry

# What should we explore?

- “Way out there” stuff
- Impact coming soon
- What is happening right now

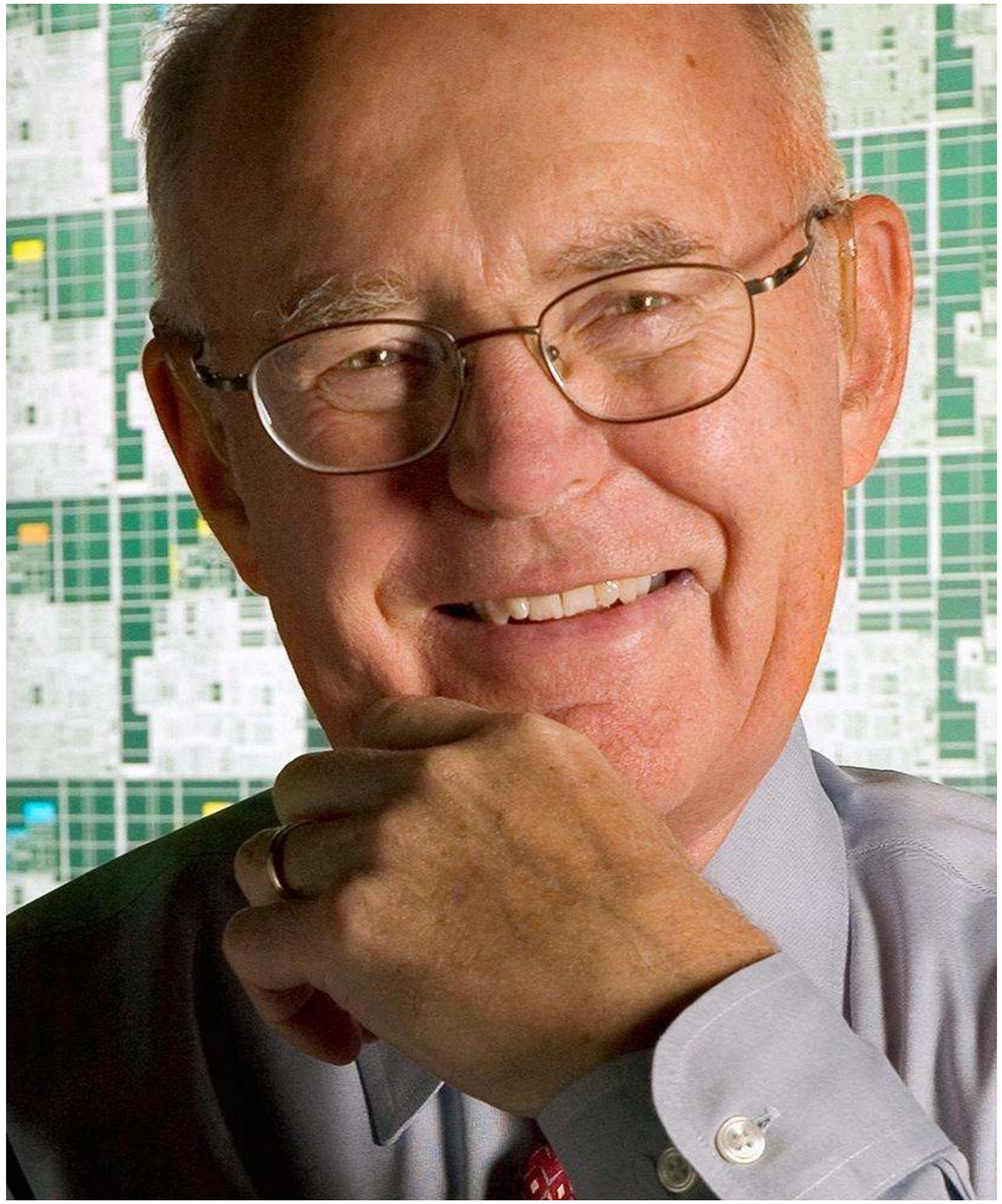
# Are we on route to a digital dark age?

Vint Cerf thinks we may.



Moore's Law,
It is the foundation
of the information
explosion

But can technology
continue to exploit
this principle



# Let’s Cover Some of the Myths

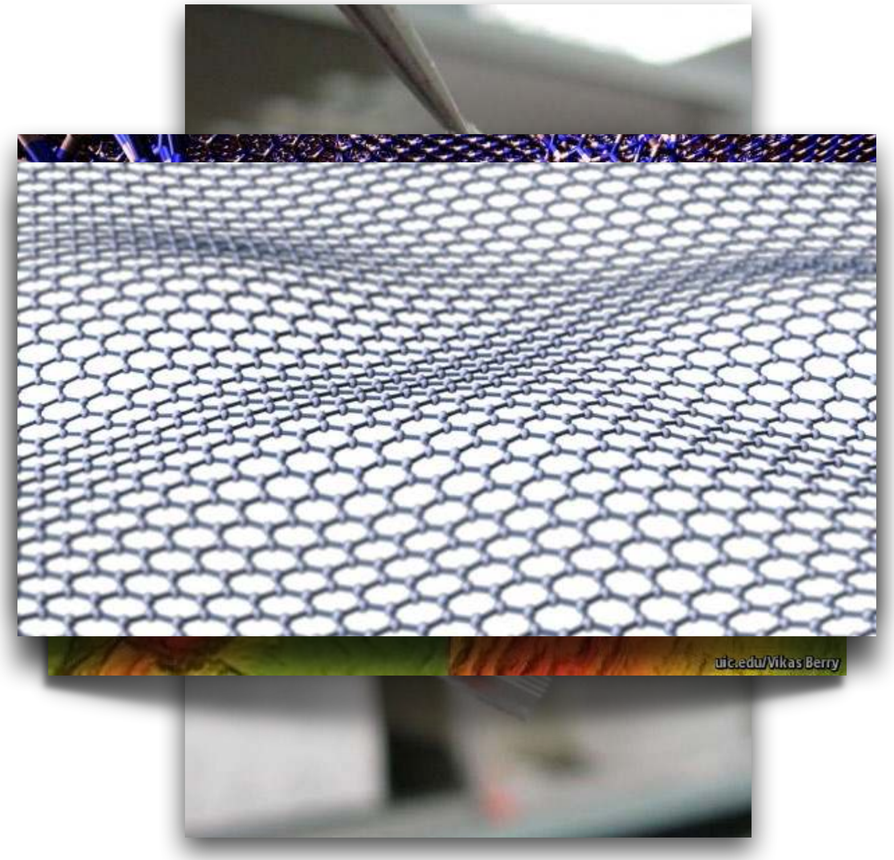
- Intel could Clock Higher if they wanted to
- The Death of Moore’s Law means the Death of Performance Improvement
- Transistor Density can Continue Forever
- A solution is right around the Corner

# A Few Key Technologies

- Graphene
- Photonics
- Quantum Dot
- IoT
- Analytics & BI Platforms

# Graphene

- Relatively Newly Isolated (2004)
- Super Low resistance
- Unpredictable Circuit Performance
- Flexible
- Versatile
- New forms being developed showing huge promise



# Photonics

## Optical Computing

**Computers of the future are likely to make use of the quantum-mechanical properties of materials, or, in other words, the behavior of particles such as atoms and molecules. Such computers are known as quantum computers, and optical computers are considered to be one of them. Optical computers would process data at ultrahigh-speed, making use of the way light particles (photons) spin to the left or right.**

***Canon Global Research***

## Qubit  A Quantum Bit

# Quantum Dots

- Developed by Nanosys, a private company owned by Venrock
- 2 to 10 Nanometers in size (50 atoms)
- Higher peak brightness
- Better color Acuracy
- Better saturation
- Can be used to develop up 8K resolution

# The Internet of Things

## *Analytics and BI platforms*

### More Users

*>1 Billion More Net Citizen's[1]*

**> 2 Billion**

### More Devices

*>15 Billion Connected Devices[2]*

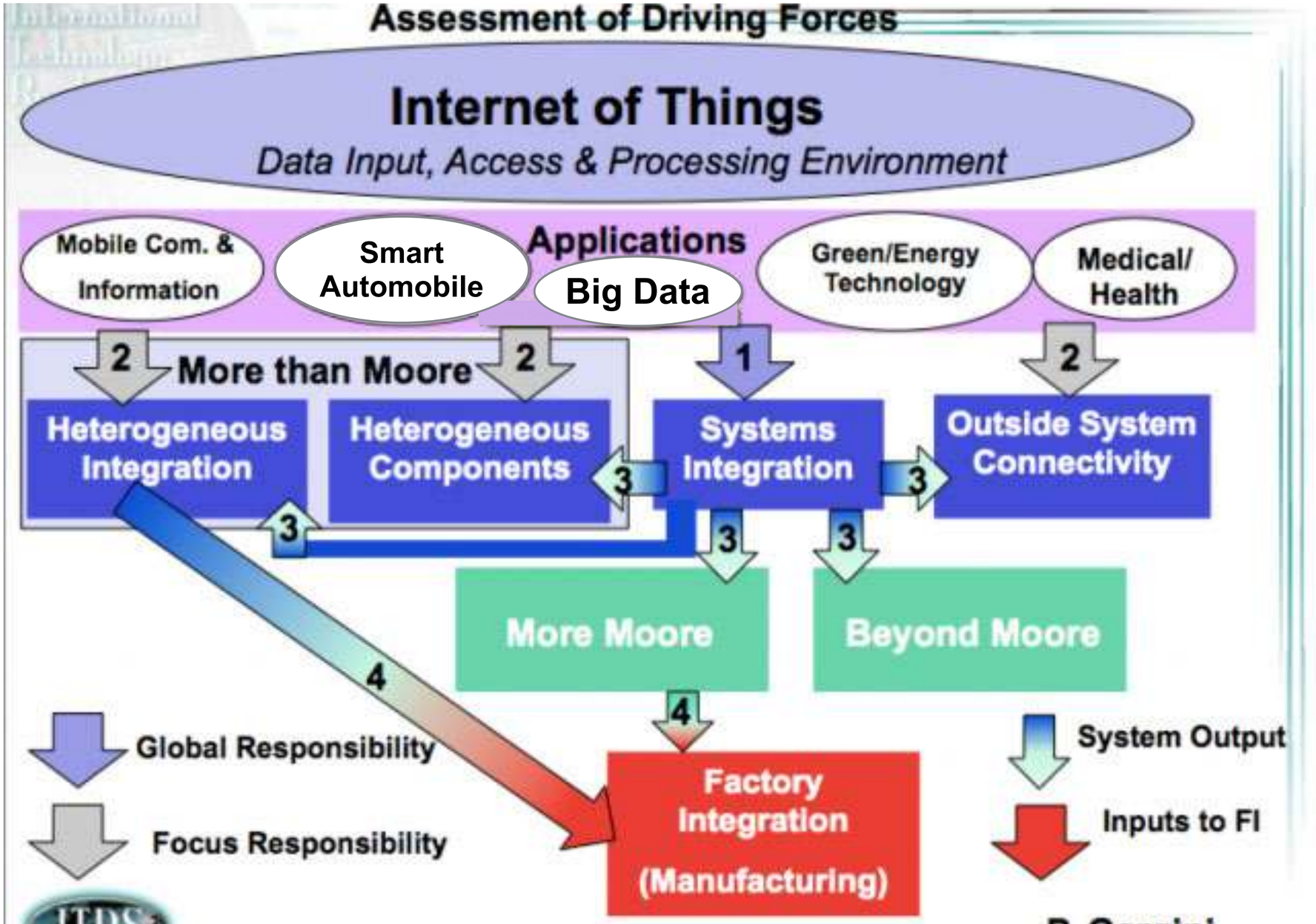
### More Data

*>1 Zetabyte Internet Traffic[3]*

**> 9 Zetabyte**

*Internet and device expansion drives new requirements for IT solutions*

# What's next ?..... Everything !!

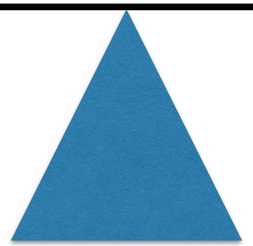


# The IT Department of Today

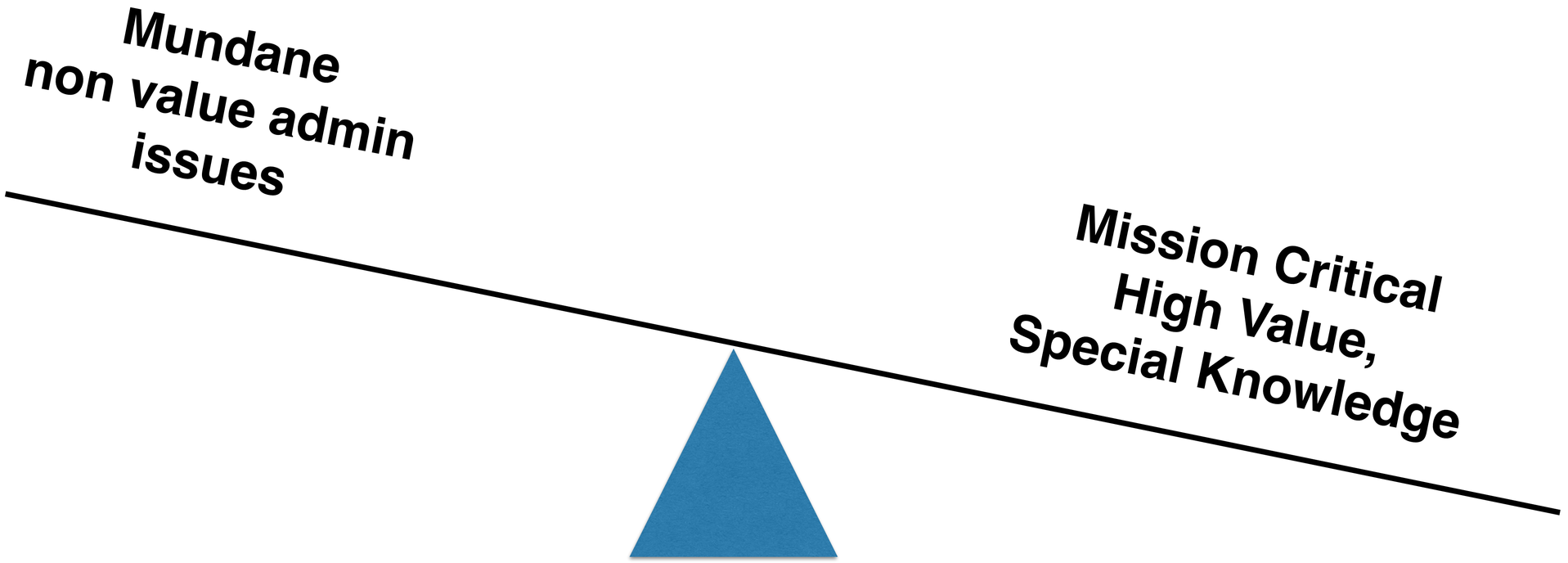
# Value

**Mundane**
**non value admin**
**issues**

**Mission Critical**
**High Value,**
**Special Knowledge**



# Value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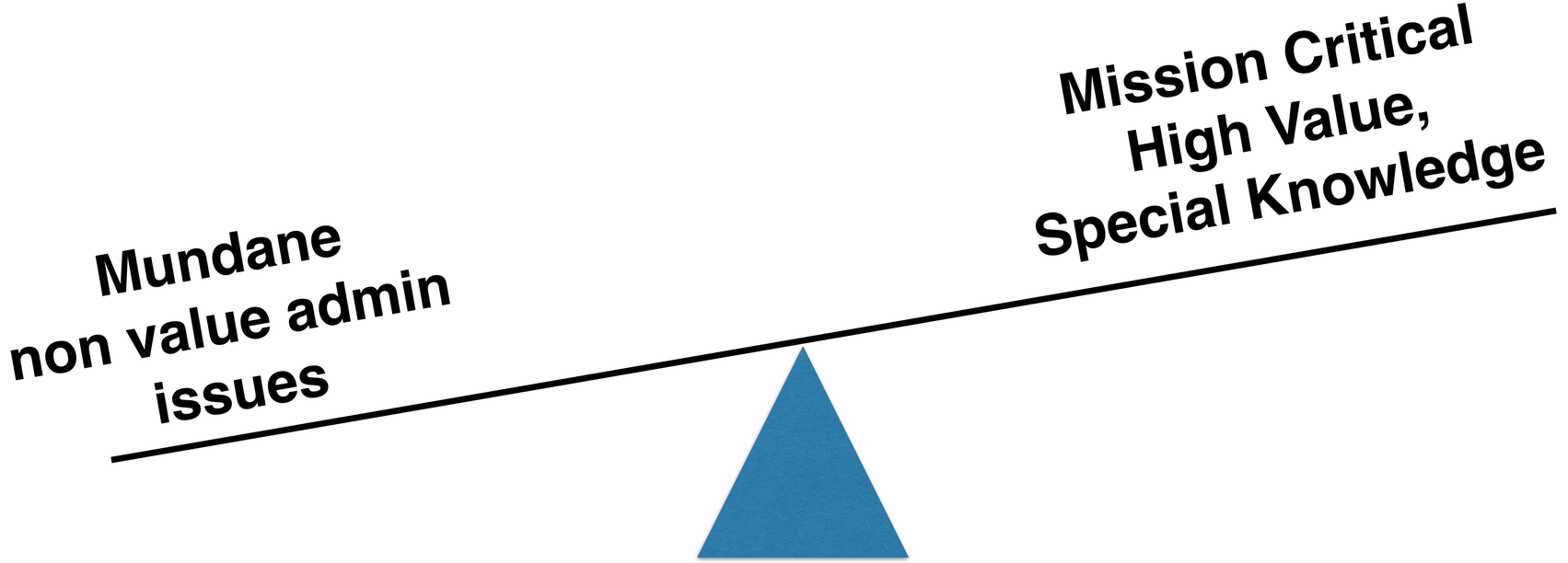
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# Why?

***"Far too many companies today find that they need to devote 70% or even 80% of their IT budget just to run and maintain what they've already got, leaving as little as 20% for innovation." This shift in responsibilities does not allow IT executives to stay focused on higher-level, mission-critical responsibilities.***

# New Imaging Technologies

- Full Page Array Ink
- Acrylate Ink Compositions for Digital Lithography
- 3D Systems

**“Less successful companies took the conventional approach where strategic thinking was dominated by staying ahead of competition, in *stark contrast, the high growth companies* paid little attention to beating their rivals. *Instead they thought to make competitors irrelevant”***

*Harvard Business Review*

**I can only succeed if someone else fails**

*Genghis Kahn*

# Let’s Talk !!!