

# Presentation to Finding Petroleum

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# cereno Overview



- Formed in 2000, cereno is an expert provider of advance telecommunication rich media collaborative services, audio, video and web solutions.



# Remote Communication, Collaboration and Cognition

**The issue is that as operations become more complex remote methods of communication (media) filter information/cognition giving rise to increased safety and cost risk .**



# What is human communication ?

*I. A. Richards*

Communication takes place when one mind so acts upon its environment that another mind is influenced, and in that other mind an experience occurs which is like the experience in the first mind, and is caused in part by that experience.



# What is cognition ?

Cognition is a term referring to the mental processes involved in gaining knowledge and comprehension.

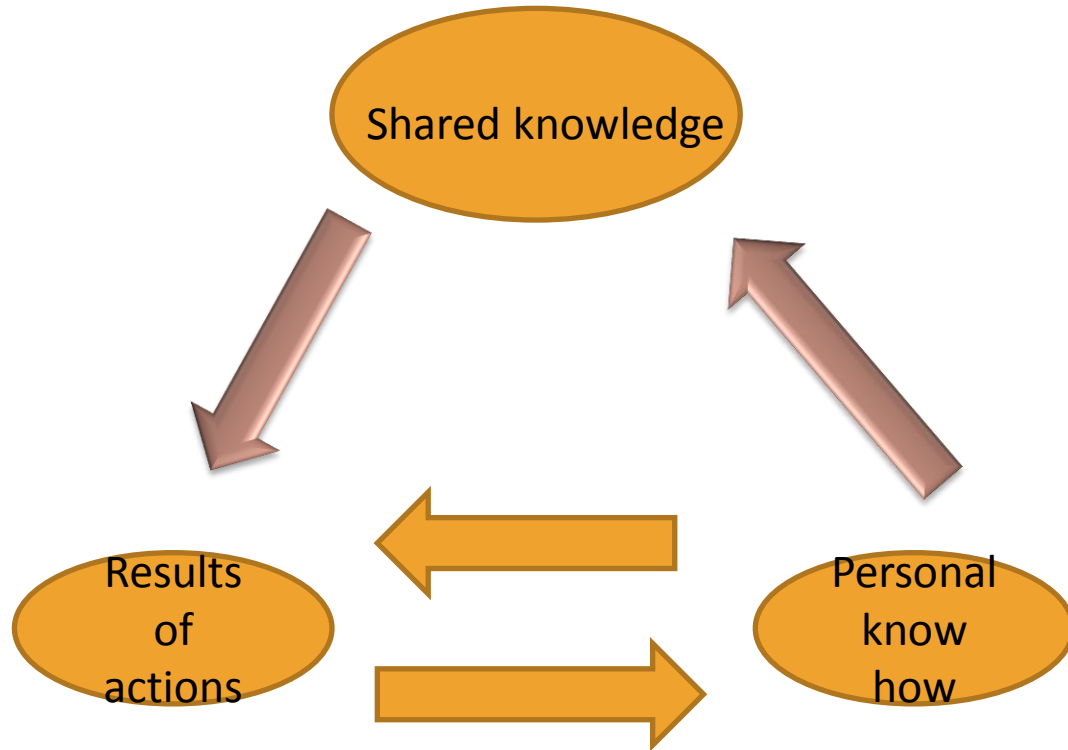
These processes include thinking, knowing, remembering, judging, and problem-solving.

These are higher-level functions of the brain and encompass language, imagination, perception, and planning.



# What is collaboration ?

## People working with a shared objective





Seeing is  
believing

Beauty is in the eye of the beholder

Body  
language

Look before you leap

Let me see

Face Value

It is written on his face



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**A picture is worth a thousand words**



# What are electronic media and how do they affect communication collaboration and cognition ?

MORSE CODE		
A •- -	J •- - -	S •••
B -•••	K -•- -	T -
C -•-•	L •-••	U ••-
D -••	M - -	V •••-
E •	N •-	W •- -
F ••-•	O - - -	X -••-
G -•-•	P •-••	Y -•- -
H ••••	Q -•-•	Z -•••
I ••	R •-•	
1 •- - - -	5 •••••	9 - - - - •
2 ••- - -	6 -••••	0 - - - - -
3 •••- -	7 -••••	Period •-•••-
4 ••••-	8 -••••	Comma - - -••-

Morse code



Telephone



Laptop



Audio Conference

**Answer is that they 'filter' important messages and inhibit collaborative cognition.**



# Can you convey 600 facial expressions over morse code, an e-mail or a telephone line?



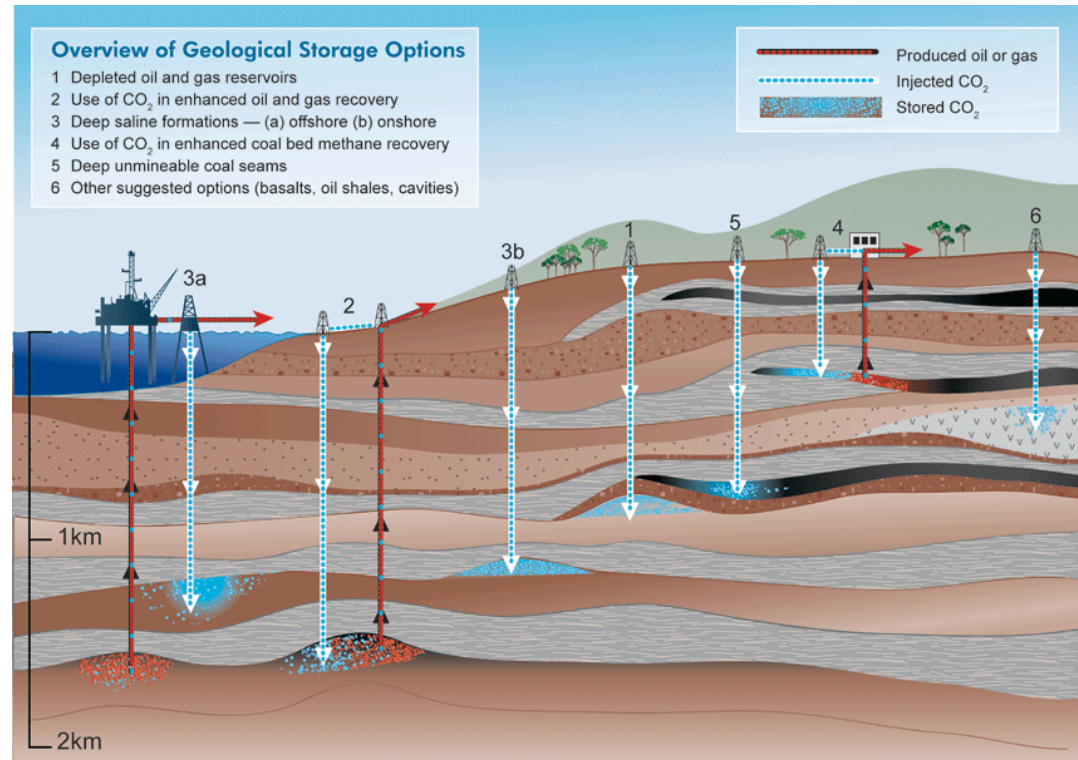
**Can you collaborate on this complex communication down a telephone line ?**

**A face to face meeting**



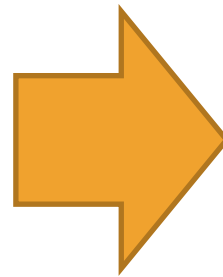


# Can you share complex documents simultaneously, in context and remotely for problem solving ?



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# Can you adequately collaborate on complex situation in a restricted space ?



# How do we share complex documents at long distance in a fluent manner ?



- Innovation
- Projects
- New Product Development
- Round the clock operations



# NUVA Just like a face to face NUVA

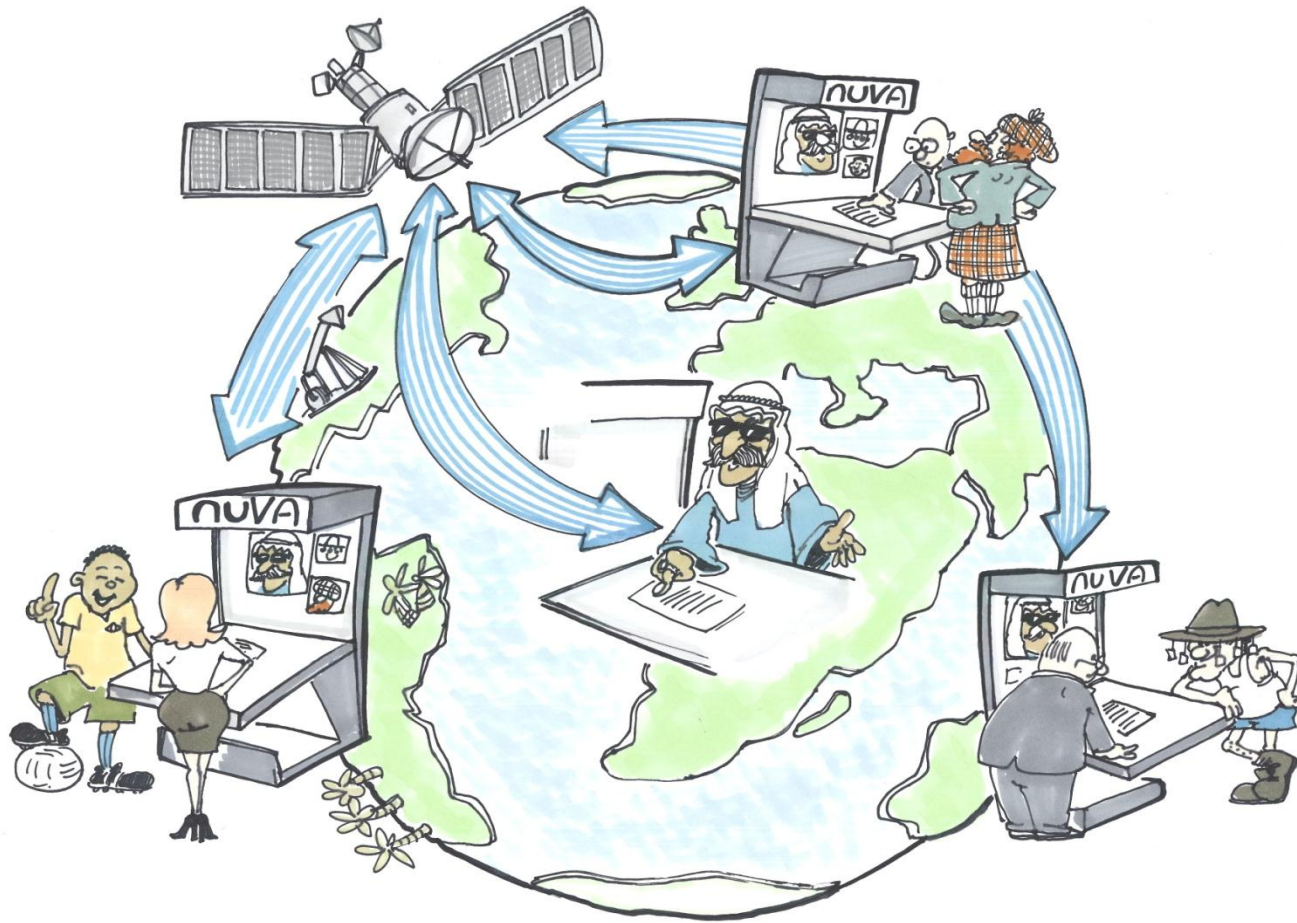


product  
design  
award

2008



# The Next Best Thing to A Real Meeting with documents on the table





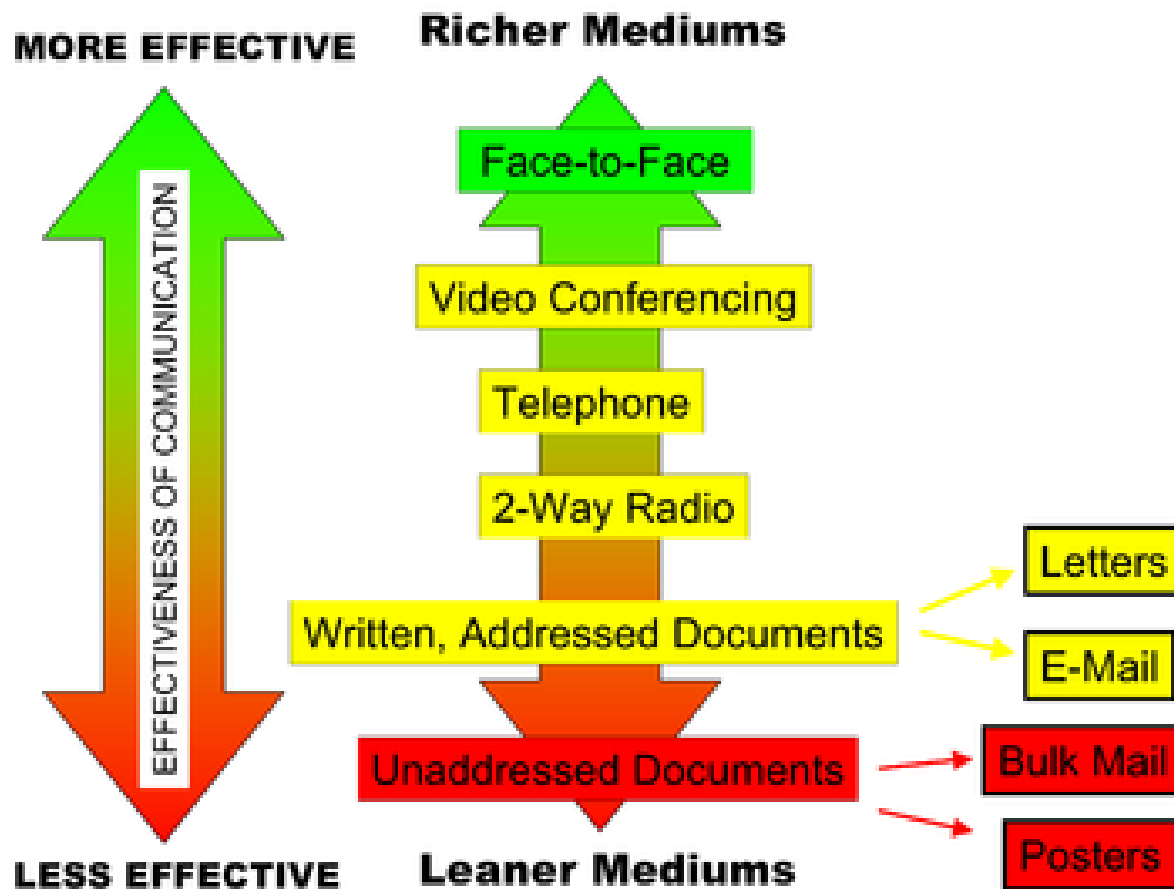
**Which electronic medium would you use for improved operations and reduced safety risk?**



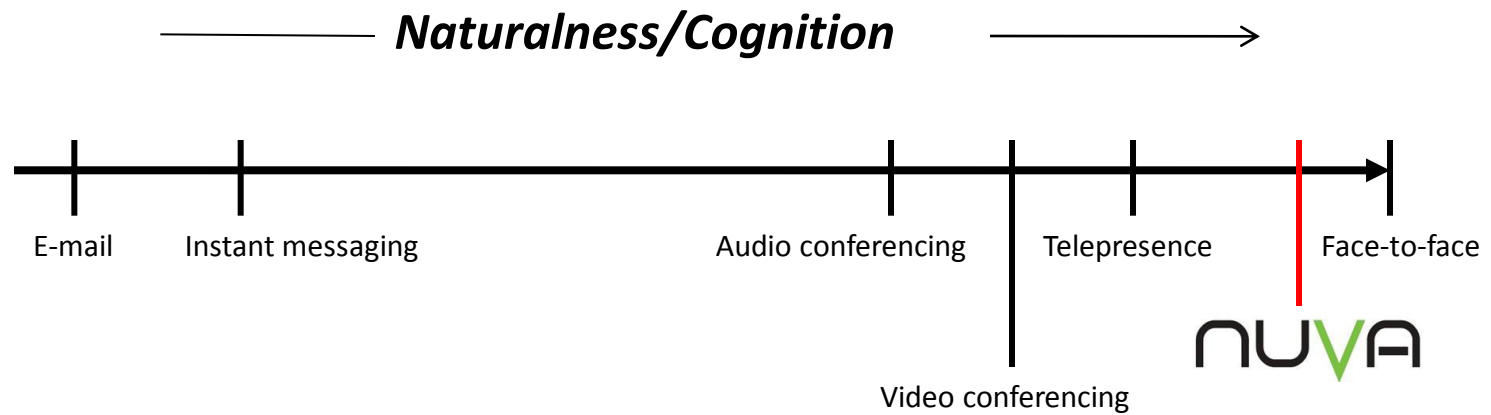
**And finally any questions ?**







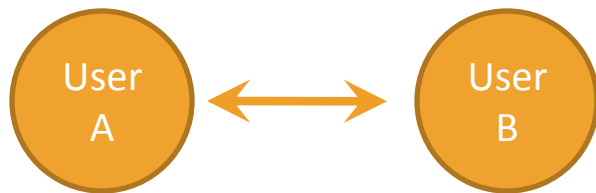
# Media naturalness scale



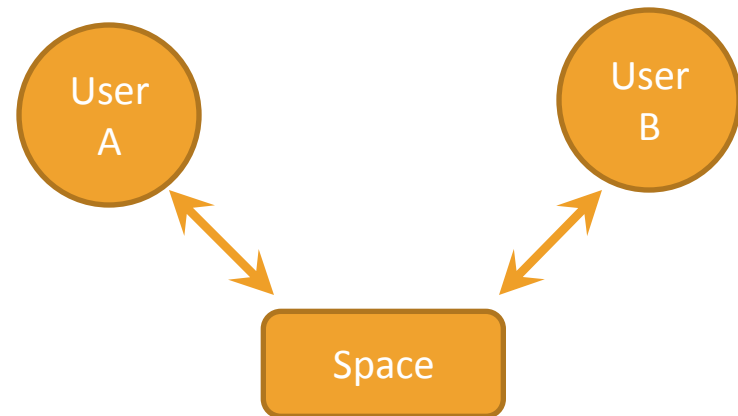
[Media naturalness theory by Ned Kock]

# Person Space Versus Task Space

Person Space



Task Space



# Why nuVA is special ?

- nuVa differentiates from its competitors by its research pedigree
- PhD sponsored at Cambridge University
- Personal Projected Displays (1999 – 2003)



## Research conclusions:

1. Importance of space
2. Affordances of paper
3. **Thought expansion**
4. Input techniques (sharing)
5. Collaboration (People space vs. Task space)

Virtual collaboration is a complex problem

Psychology

Sociology

Technical designs

Human factors

Cognition

Business models



THALES



UNIVERSITY OF  
CAMBRIDGE



KING'S  
College  
LONDON



UNIVERSITY OF  
SURREY

# Knowledge Management Framework: Work Models

**Collaborative  
Groups**

Integrated model

Desktop –based  
web conferencing  
for basic  
collaborative tasks

Transaction model

Collaboration Model



Natural, intuitive and  
rich collaboration  
environment for  
complex tasks

Expert model



**Individuals**

**Routine**

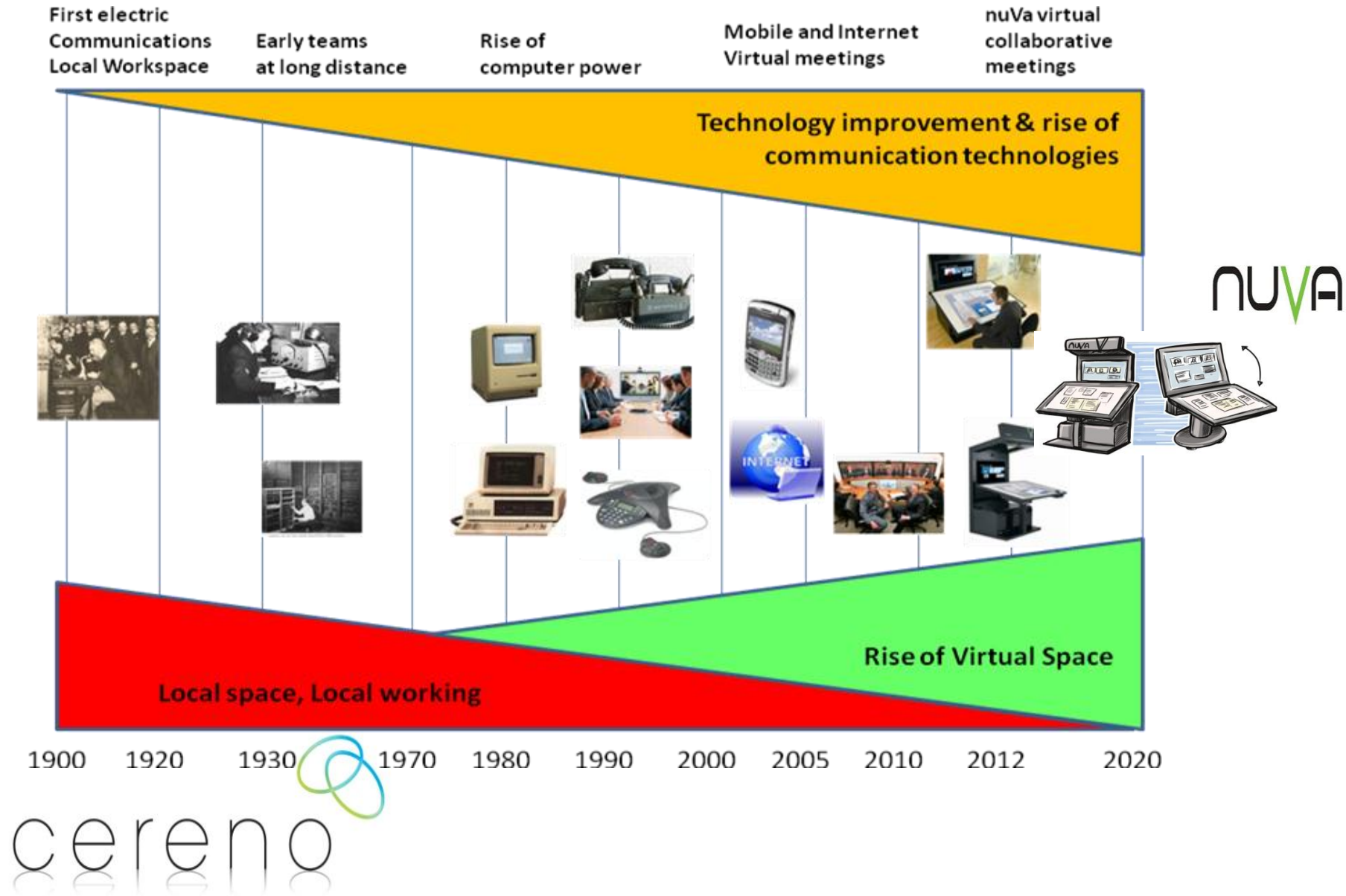
**Complexity of work**

**Interpretation/  
Judgment**

Source: Accenture



# Rise of the Virtual Space





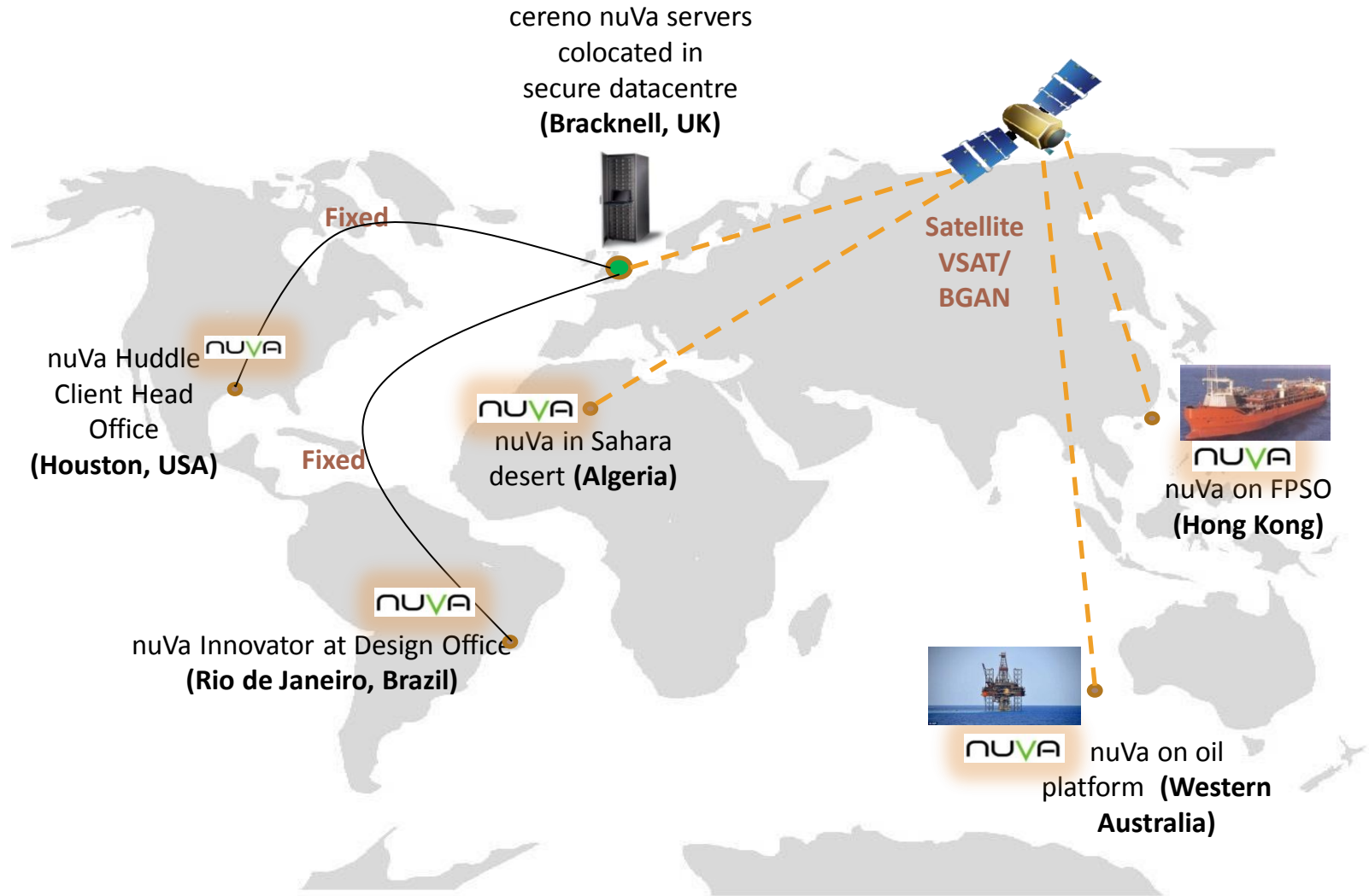
# The problem that nuVA solves

## Opportunity

- Global organisations use different countries to design and assemble their products and projects.
- The greater the complexity the greater the collaboration required.
- Currently major global Projects, Product developments, and Innovations cannot remotely share complex documents in context immediately.
- Weak global innovation/collaboration can be very costly – think BP ! Kodak etc. !



# Global Design Collaboration using nuVA



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Global Design Collaboration using

# Thank You !



# nuVA Iconia dual screen laptop



**Rich nuVa collaboration  
for dispersed mobile teams and individuals**