

A trip to the future

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Futurizon

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YOU'RE LOOKING FOR?
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Innovation as driver of change

Pressure to change

Ongoing economic problems, Loch Ness Monster recession – need efficiency improvements all round

All of Business is changing rapidly - changing sectors, processes, standards and structures

Society is changing everywhere – demographics, ethnicity, culture, values, wealth distribution

With poor management practices and inefficient companies purged, and society having re-appraised core values, the future might be pretty good

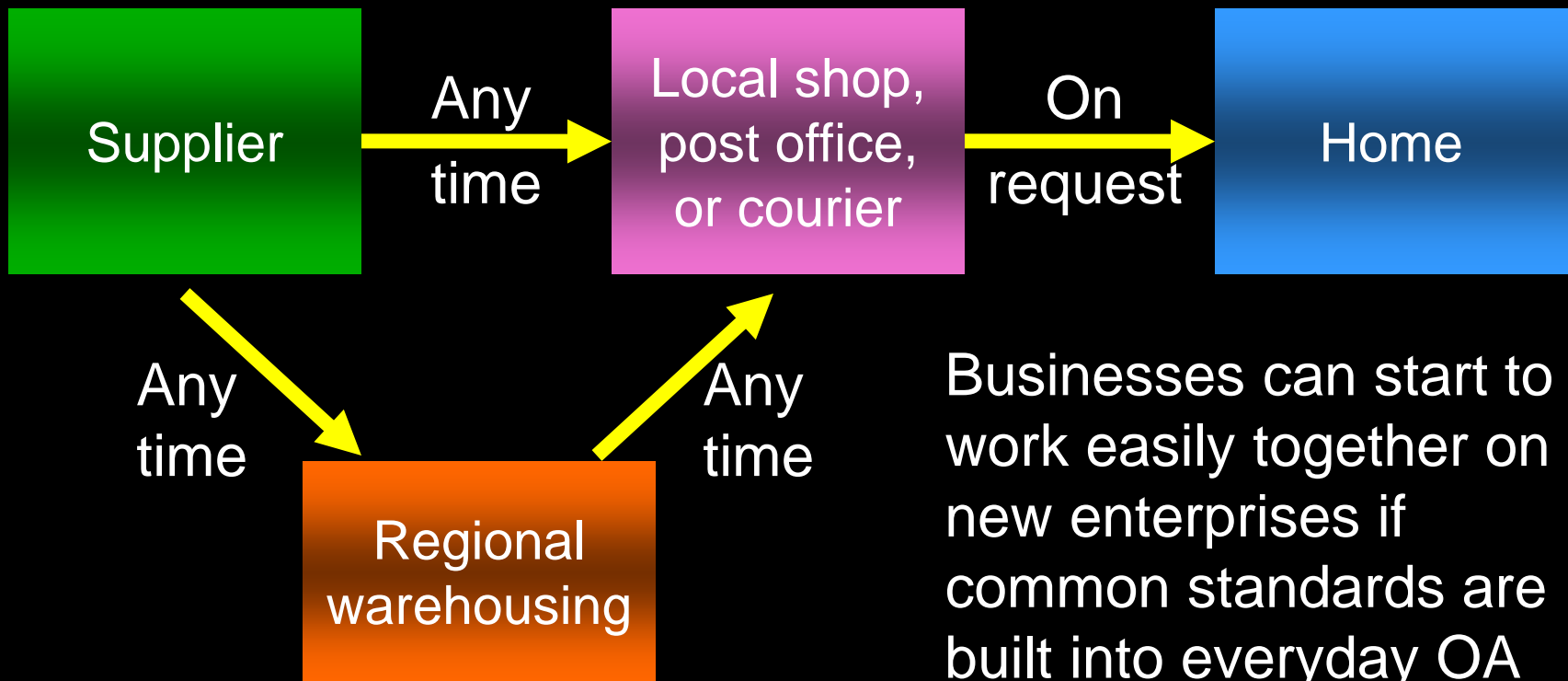
3d Printing, implications for manufacturing and IP licensing



3d printing can make complex accessories that can contain IT & mechanical functionality as well as look nice. Primitive so far but potential as a major tool for new businesses is good.

Home Delivery Innovation

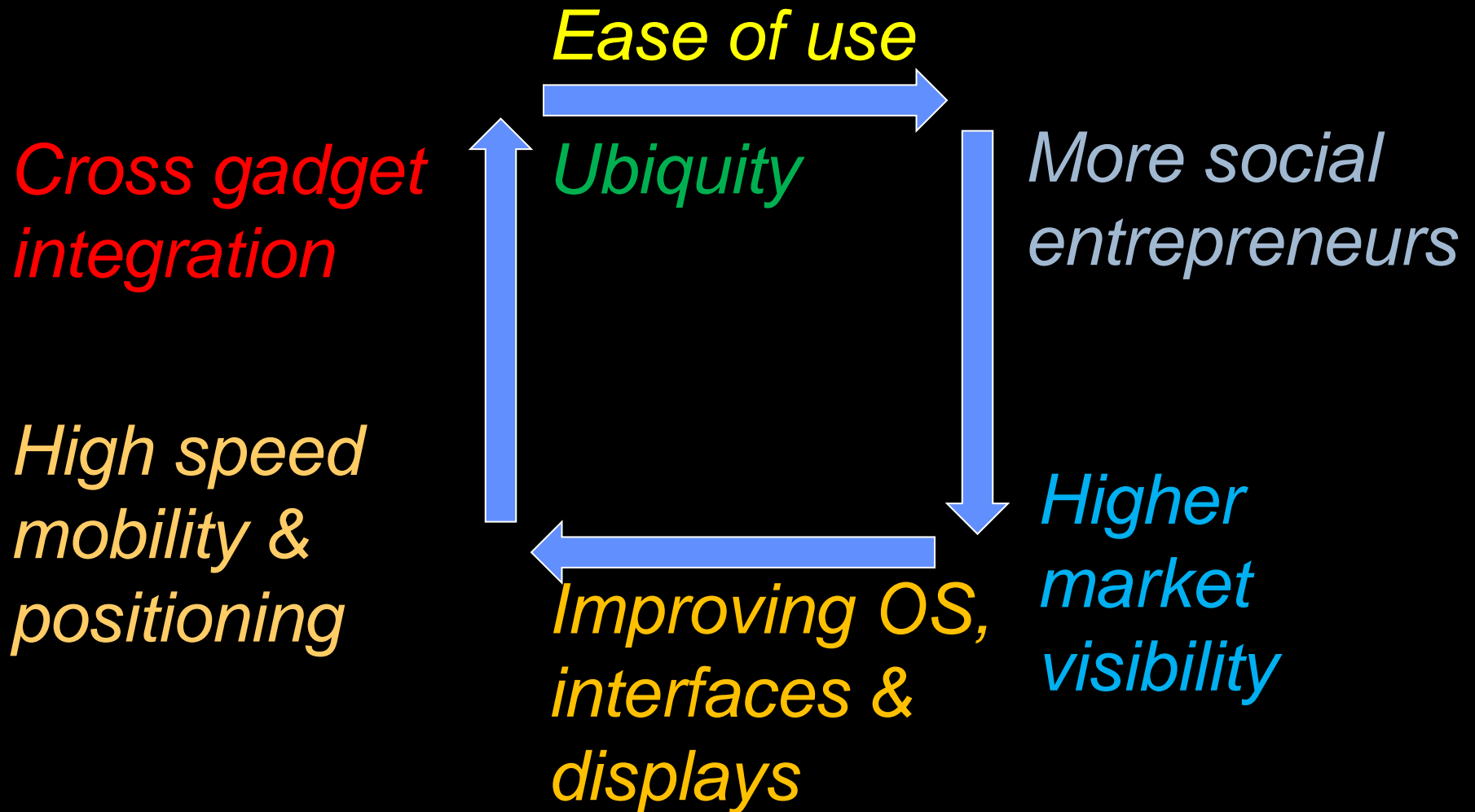
Smart local storage, distribution, collection & services



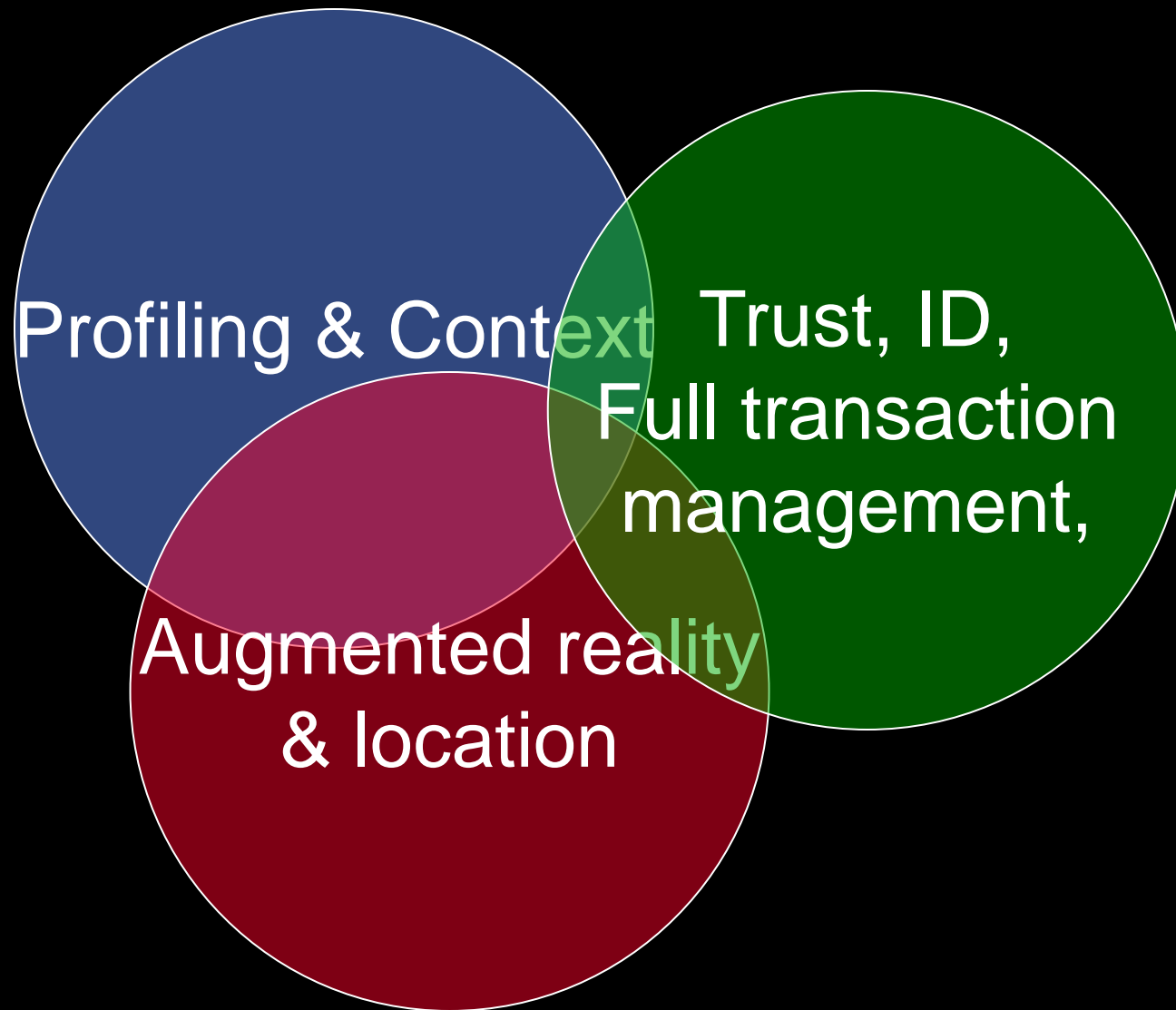
Businesses can start to work easily together on new enterprises if common standards are built into everyday OA

Idea 1995, Amazon realisation 2012

Virtuous circle for app and social web development



Service evolution



Convergence of real and virtual worlds brings new business conflicts such as digital trespass. New layers added to shopping, taxes, payments, privacy.

But common business/finance standards can transform competition into coopetition.

Competitive positioning

Making better decisions

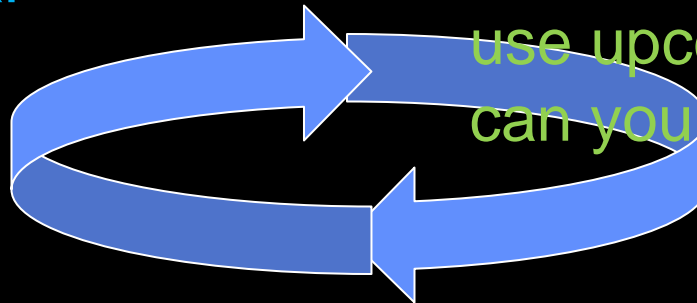
Keep watching
change. Don't
relax!

Make a decent map of the
business landscape ahead
– how will other companies
use upcoming techs, how
can you adapt

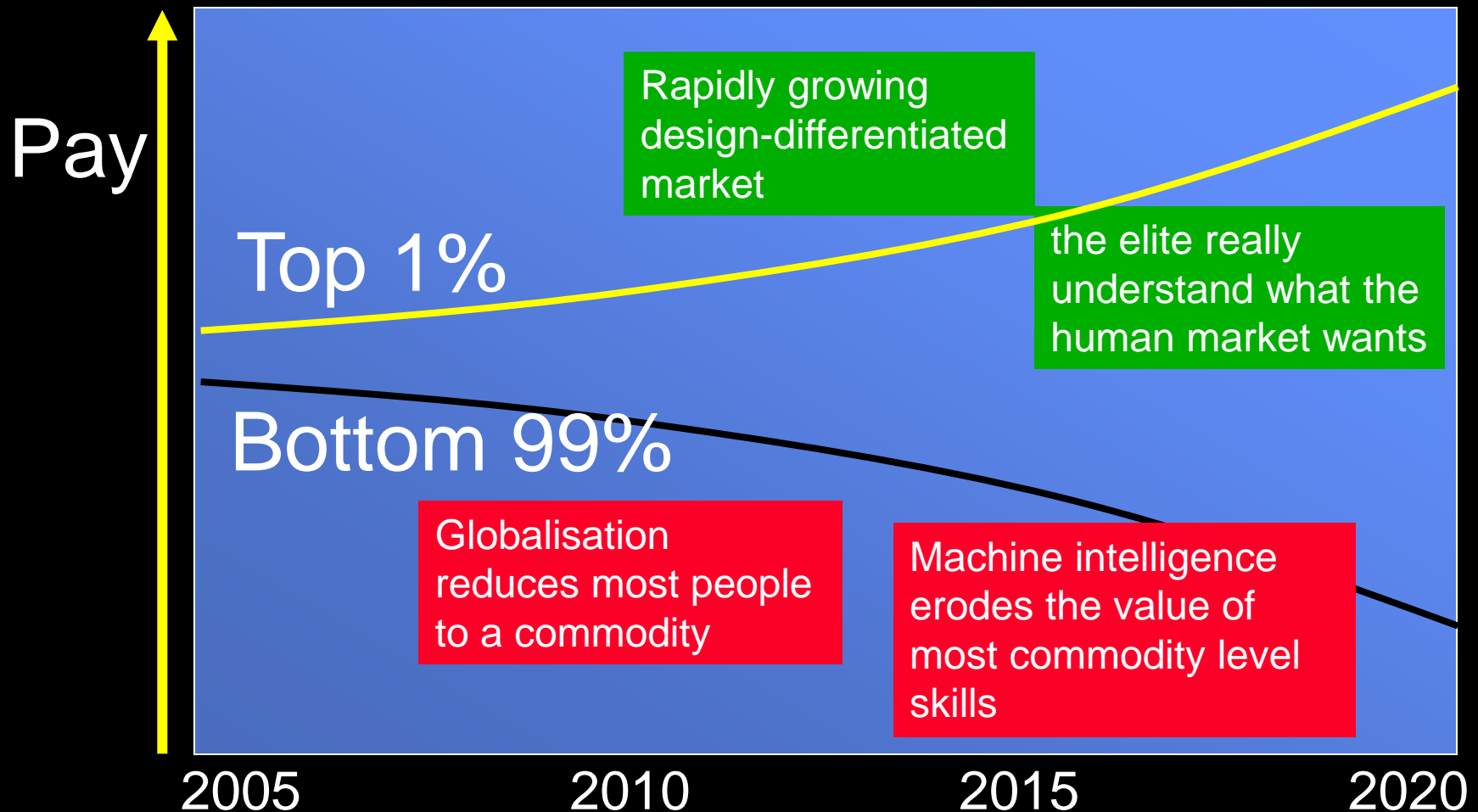
Form a robust
strategy to follow
the path and get the
right people and kit

Choose the path that
offers right balance of
risk and reward for you
and your business

Identify threats and
opportunities for
potential ventures and
potential for organic
growth, as well as for
your existing business



Top people will cost even more



Skills for the job – feminisation of work will continue

Agricultural Age

Strength

Dexterity

Hunting

Fighting

Navigation

Team Working

Industrial Age

Strength

Dexterity

Engineering

Fighting

Political

Intellect

Management

Leadership

Information Age

Engineering

Global politics

Peacekeeping

Intellect

Creativity

Design

Management

Administration

Leadership

Marketing & sales

Networking

HR

Care Age

Caring

Networking

Human interfacing

Community

Empathy

Counselling

Peacekeeping

Leadership

Motivation

Marketing & sales

Creativity

10 survival priorities

(source: Pearson/Branston)

Trustworthiness

Brand integrity

Business diversity

Social responsibility

Foresight

Think clouds

Bravery

Agility & adaptability

Think virtual

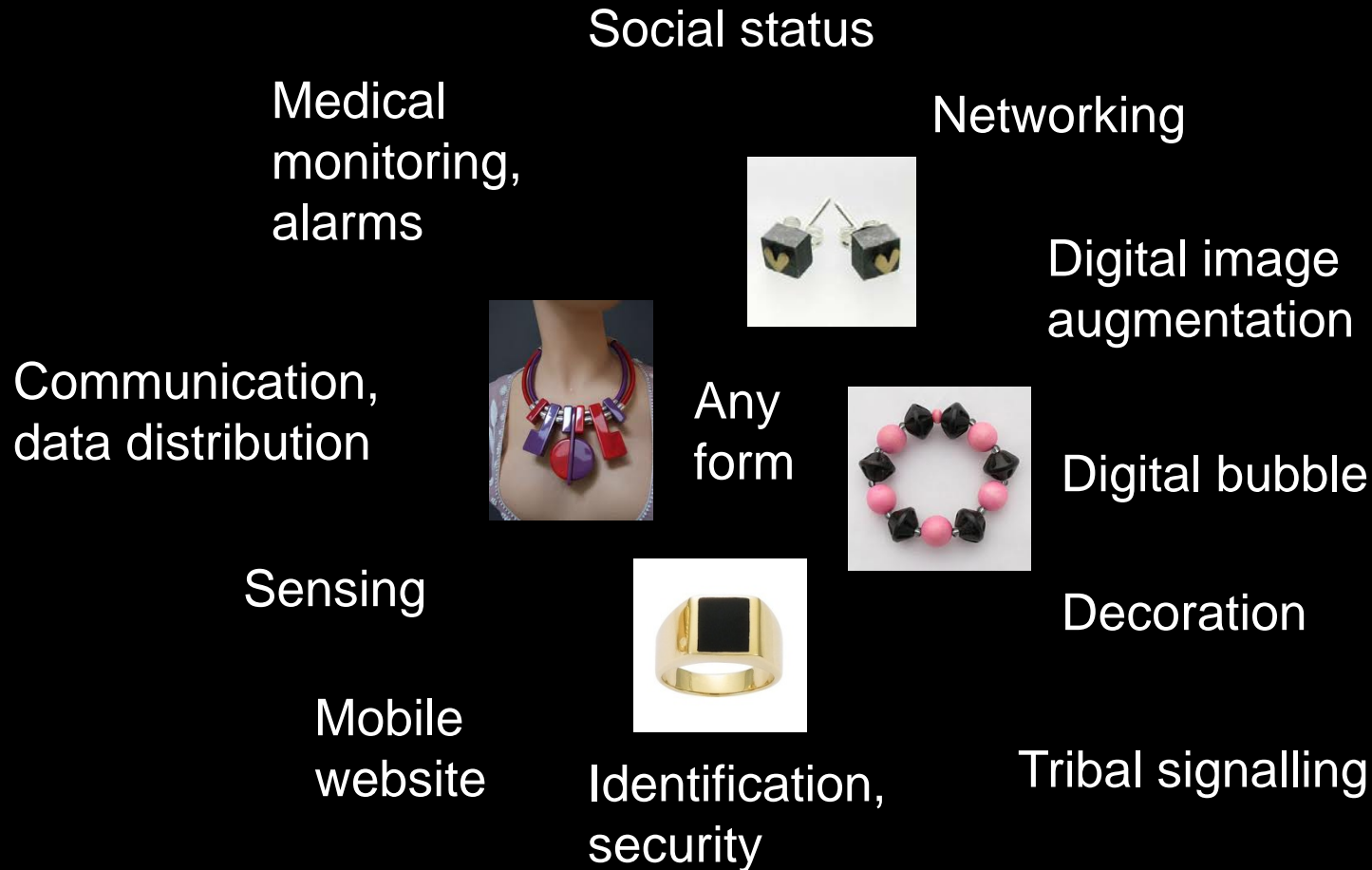
Focus on being human

Future IT developments

IT progress so far

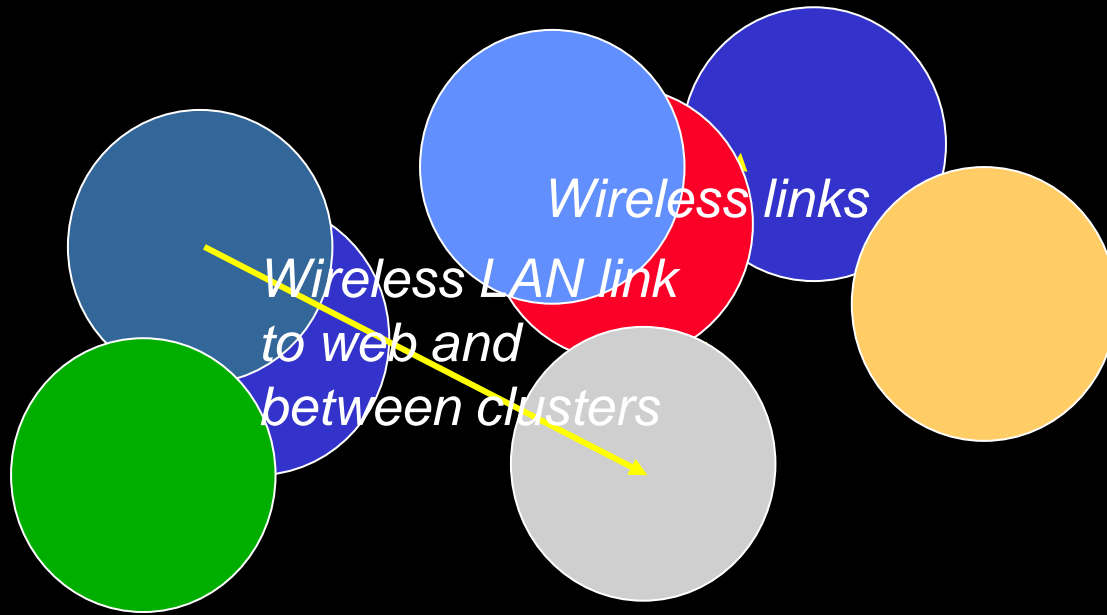


Bring your own kit 2.0



Miniaturisation will bring everyday IT down to jewellery size. Combinations of devices can monitor and relay a wide variety of data.

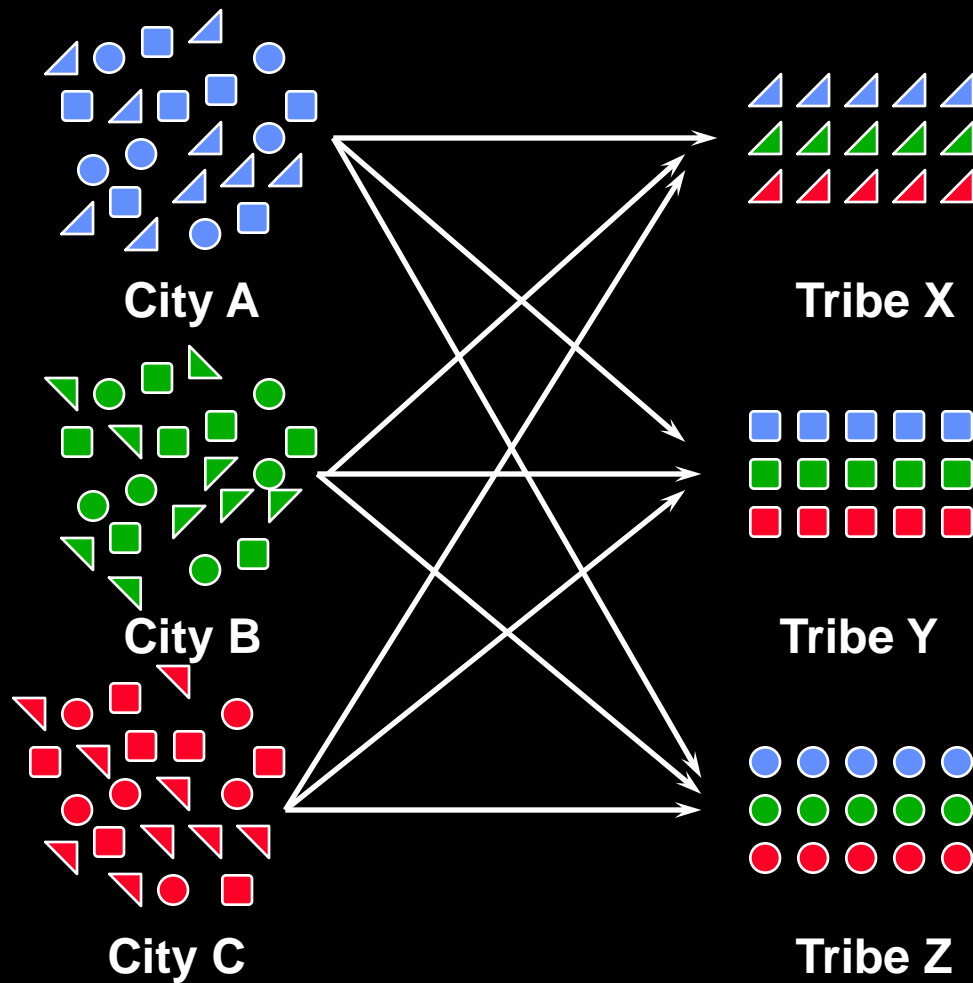
Parallel web: Sponge nets



Laptops
Tablets
Smart phones
Display devices
Digital jewellery
Beacons
Street furniture
Custom devices
Smart clothing
Active skin

Direct inter-device networking will become an important alternative internet platform. May be used to obtain secrecy.

Urban tribes

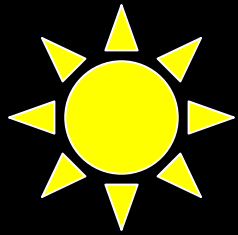


People may belong to many tribes, according to their professional roles, hobbies, social groups and political preferences. Each may have its own tribal symbols and uniforms that can be displayed virtually even when physical appearance can't be altered.

Appearance can be determined by dynamic group interaction, location and other contextual parameters.

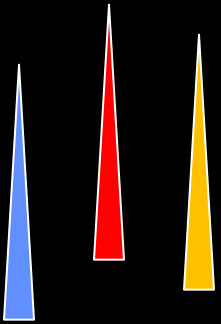
Real World

Cyberspace



Digital air

Public service data



Advertising
Beacons



RFID/NFC

Background data radiation and public information will be ubiquitous, context dependent data will be pulled off the net and from packaging, marketing messages pushed by in-store beacons, and sticky information will brush off and be transmitted person to person down the street



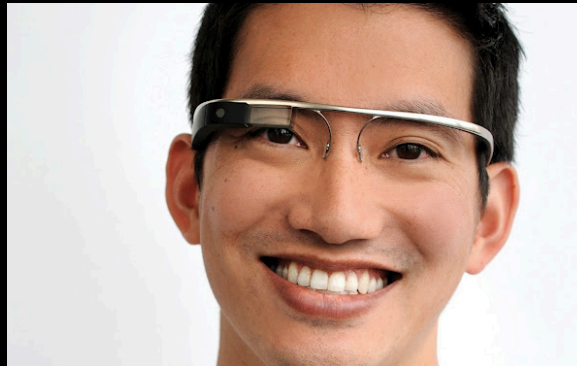
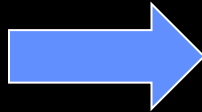
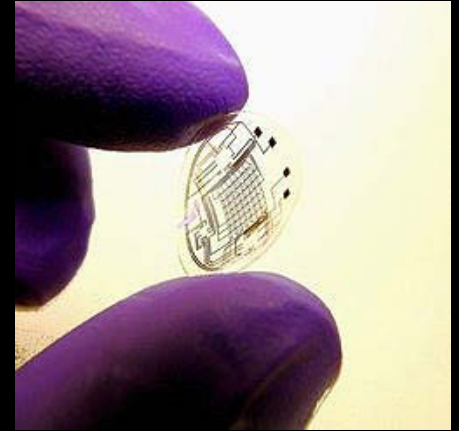
Positioning services



Digital bubbles

Emerging technologies and opportunities

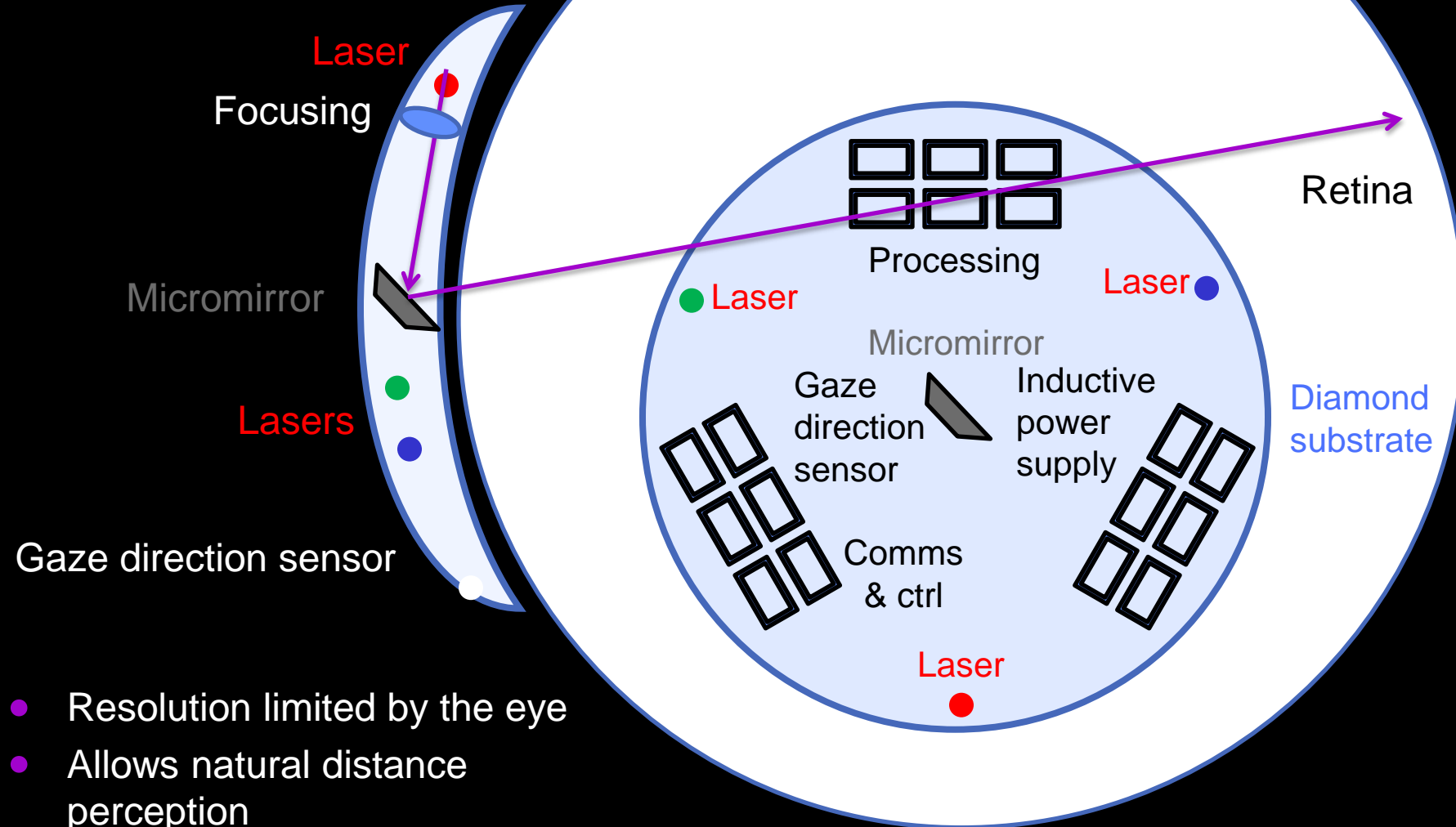
Display evolution



The more personal displays become, the more opportunity they present in every field. Potential for spying, surveillance, spam and other abuses is high

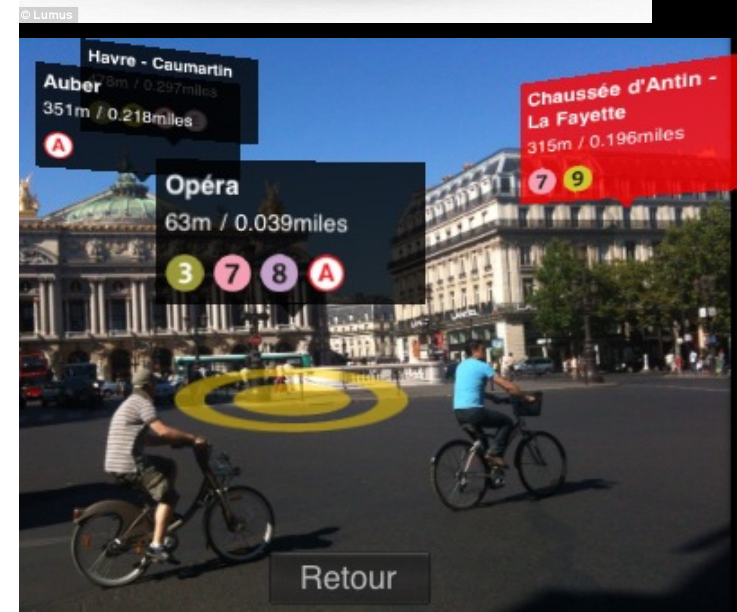
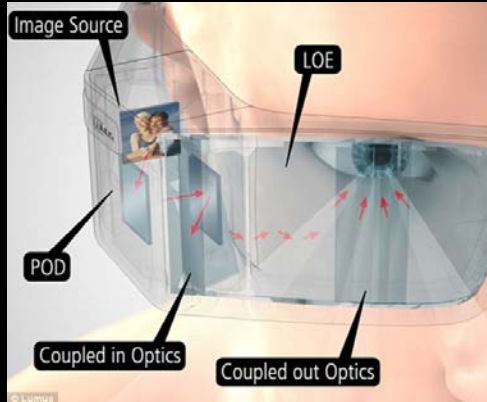
Active contact lens

Pearson 1991



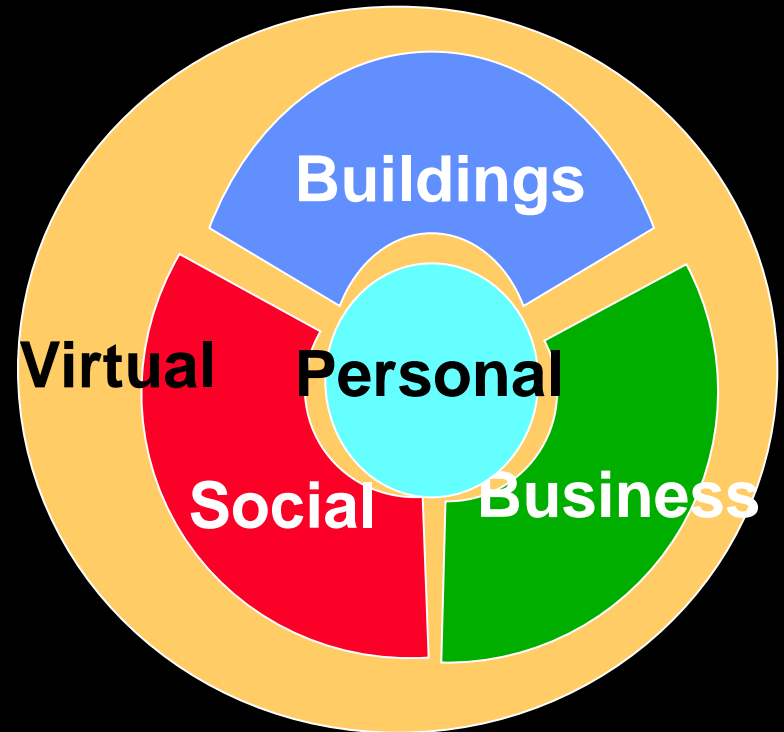
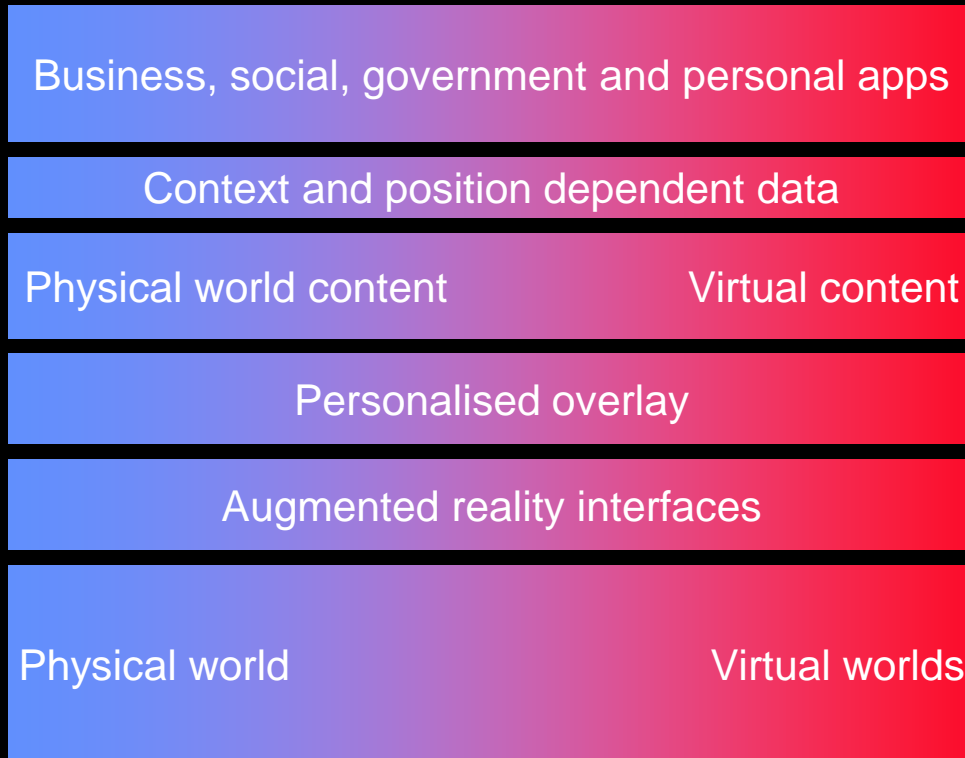
- Resolution limited by the eye
- Allows natural distance perception
- Tiny environmental footprint

Augmented reality



Virtual architecture, data and image superposition, marketing, social and other information, or simply overlaying professional information and services. Huge opportunities, but also interest from other industries with different agendas - Google, Microsoft, eBay or Apple...

Duality Markets



New industries at every layer

Data assurance services

Business restructuring

S/W, OS & standards obsolescence

Bring your own kit

Data assurance

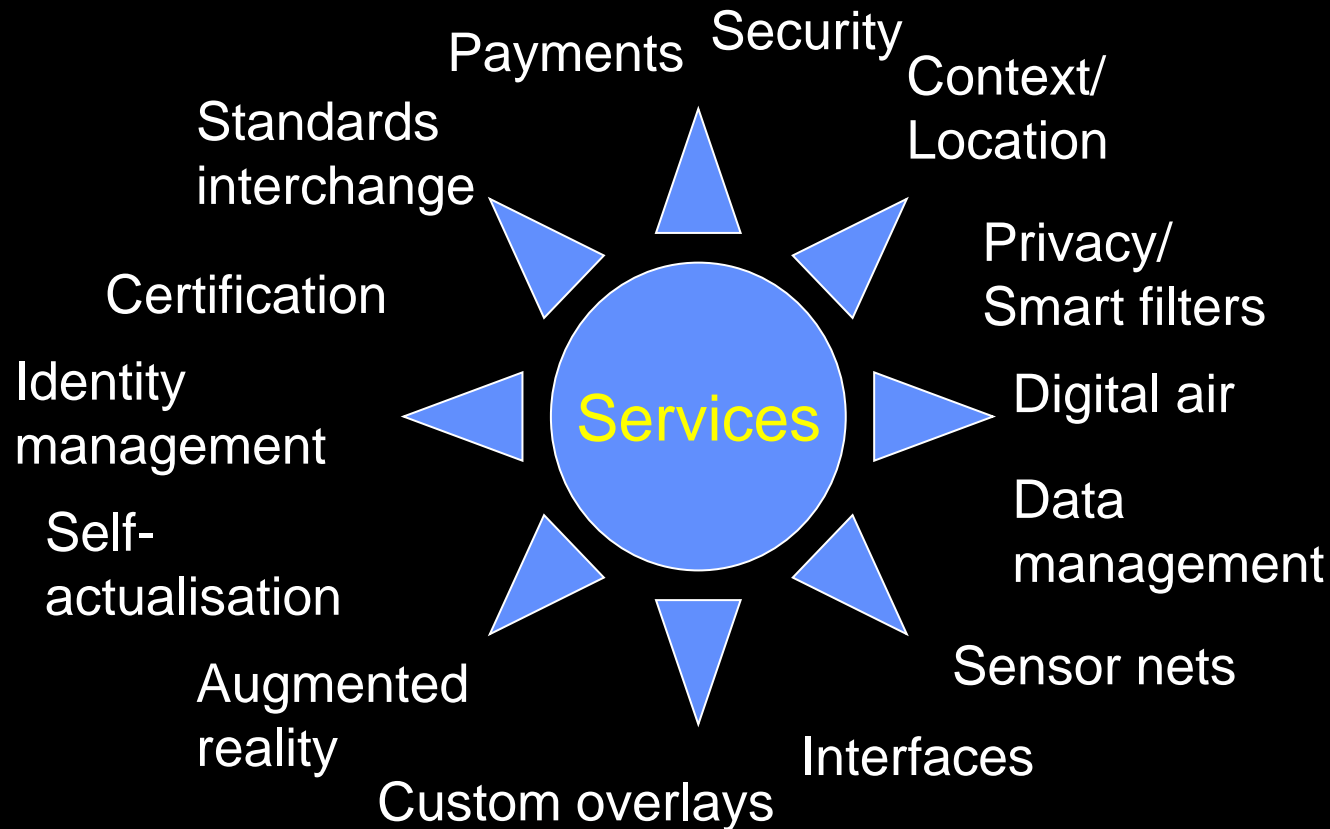
Parallel webs

Miniaturisation threats

More cyberattacks

Lots of trends adding to risk of data loss so more opportunities for companies to help protect against it.

Cloud based services



As cloud services fragment, rewards will go to the innovative

Operational efficiency

Bad IT

Inappropriate or excessive managerial use of IT can destroy productivity and staff loyalty & commitment!

Too much security can push staff off corporate system onto insecure BYO

But the main problems are micromanagement & centralisation

Security threats



Smart dust



MFP

Internal signals indicate every piece of data that is processed by MFP. Signals can be captured and stored in smart dust until agent walks past, then silently transmitted to his memory stick.

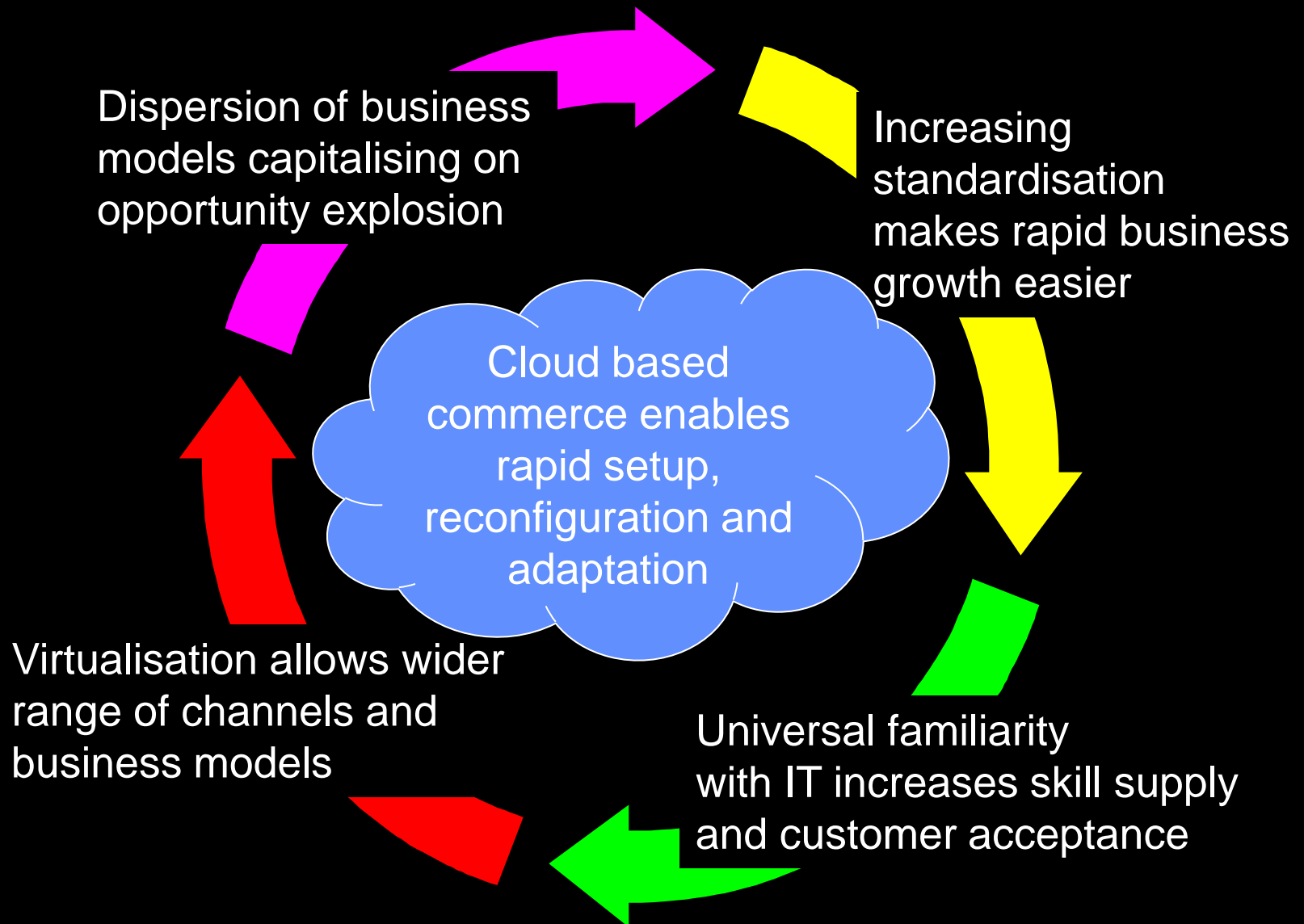
Smart dust can be invisibly small, less than 0.1mm



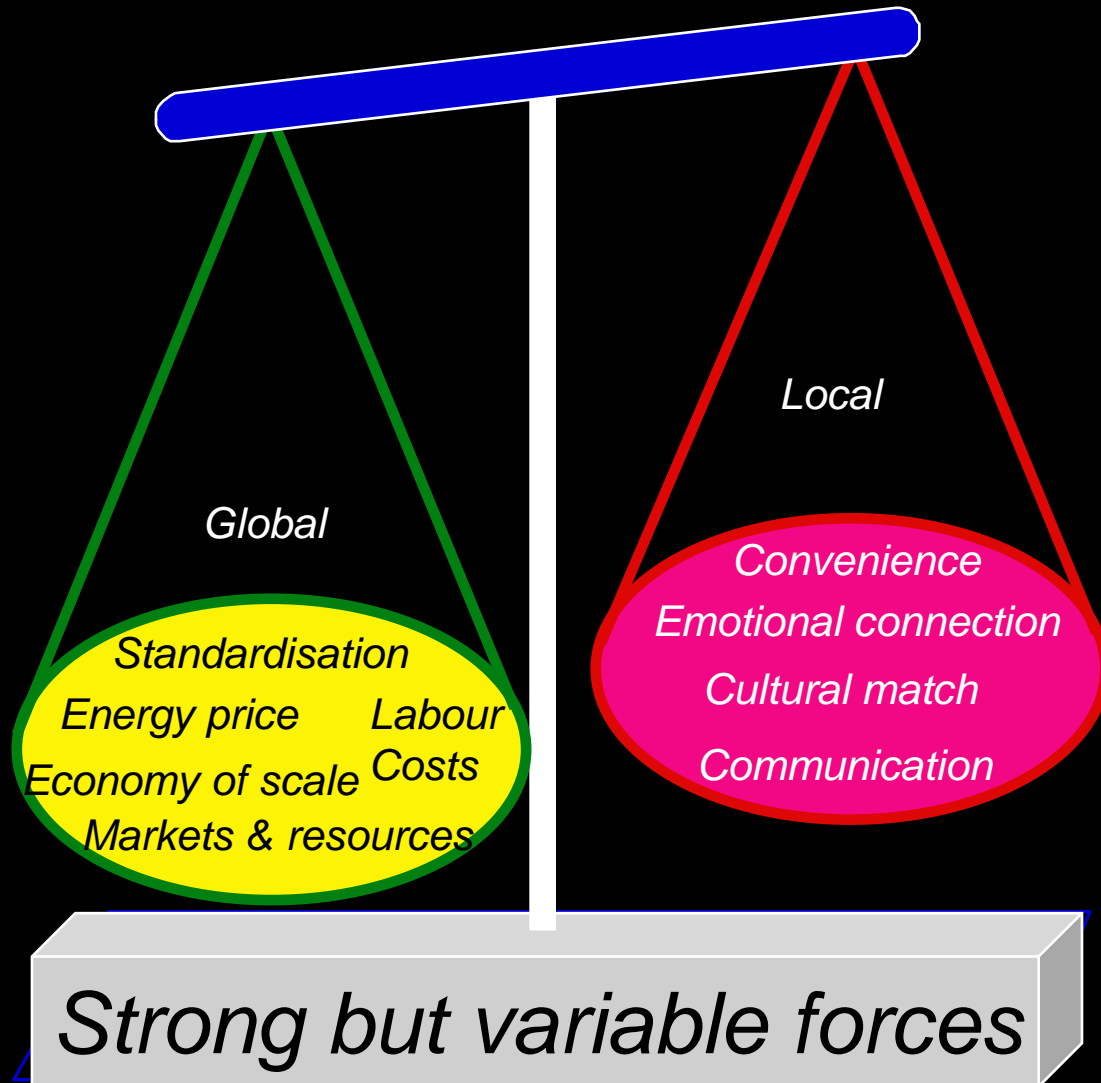
Agent

Changing business models

Business evolution cycle

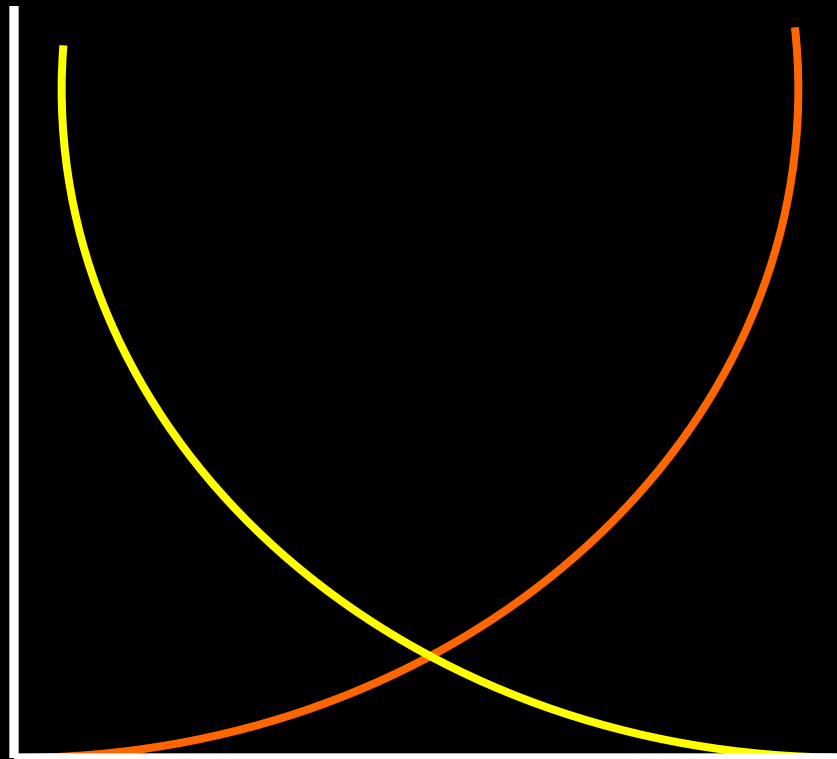


Global v local



Care economy businesses

Value of
physical/
intellectual
Work

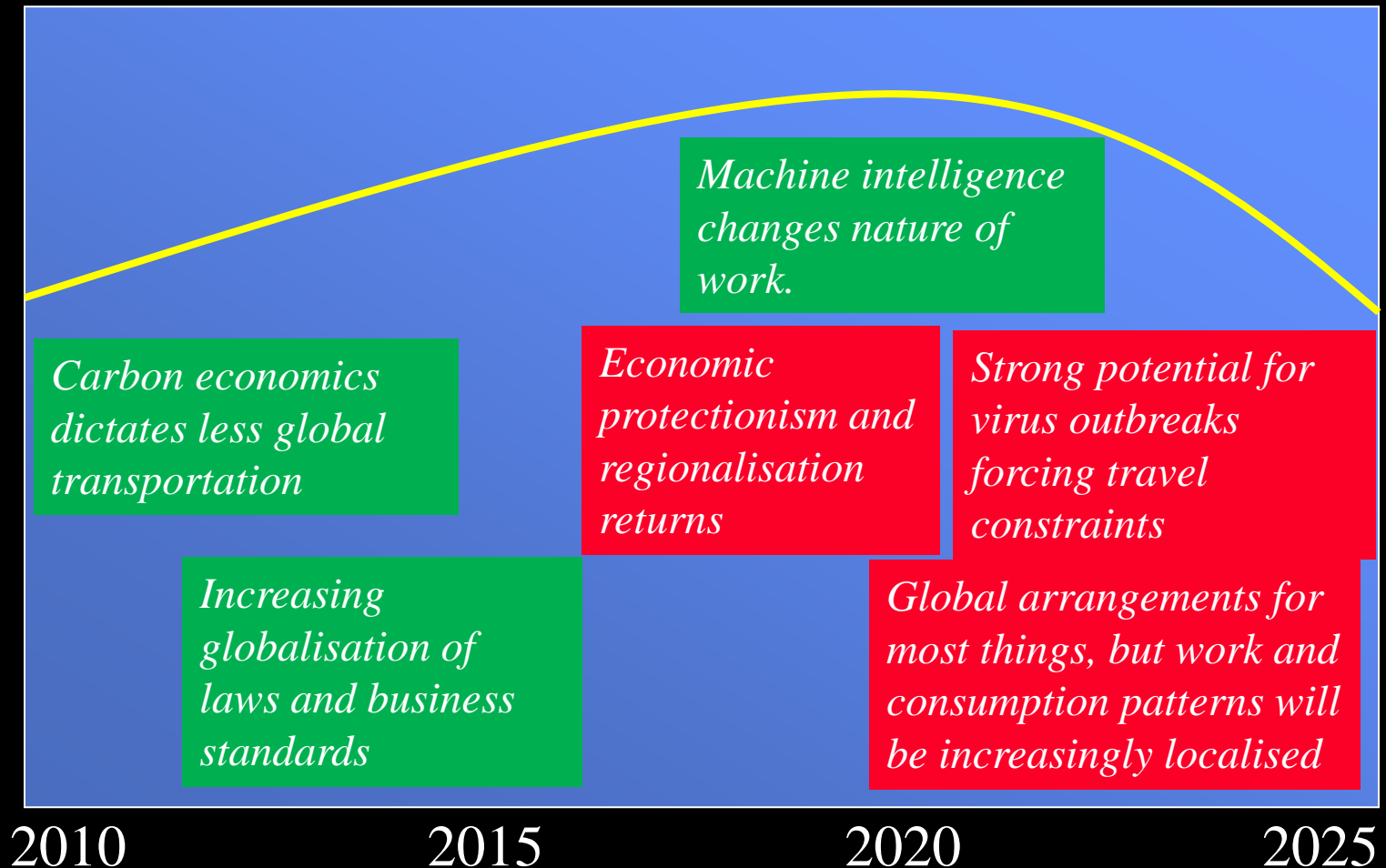


Value of
community &
social
wellbeing

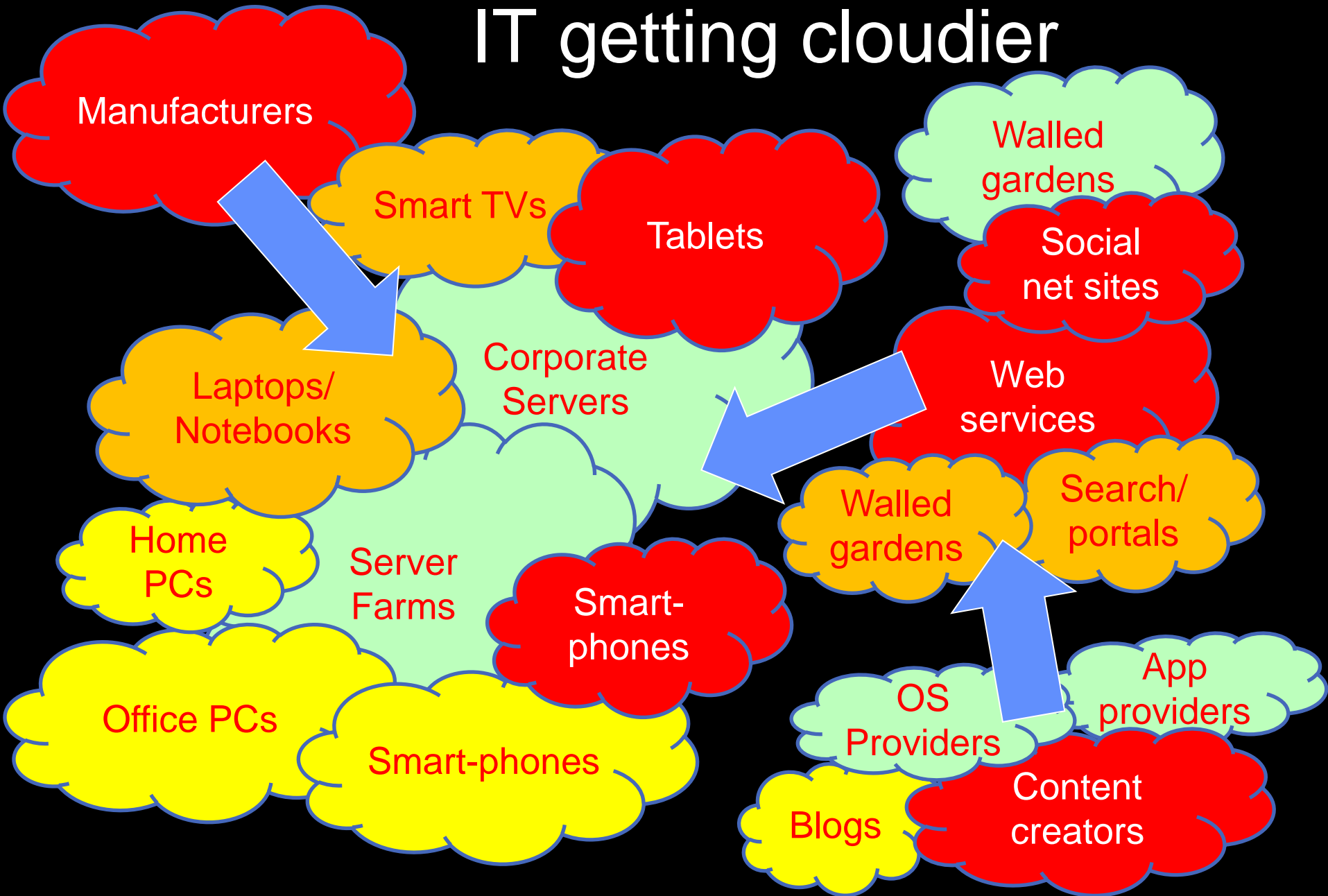
time

More face to face interaction, needing emotional and 'human' skills.
Trust will be a very key factor and requires better integration.
Companies need to adapt to work more closely with the community.

Part-reversal of globalisation

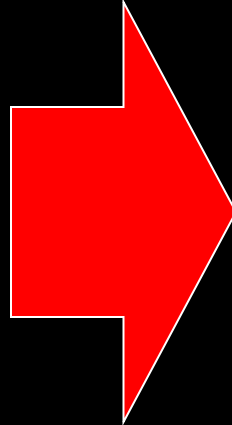
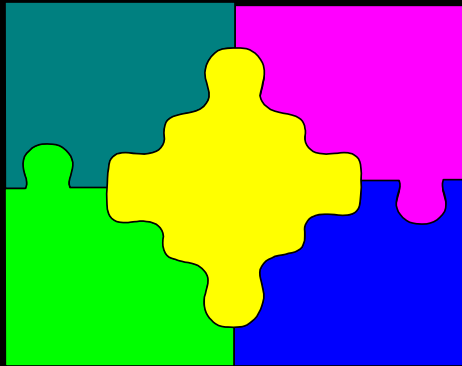


IT getting cloudier



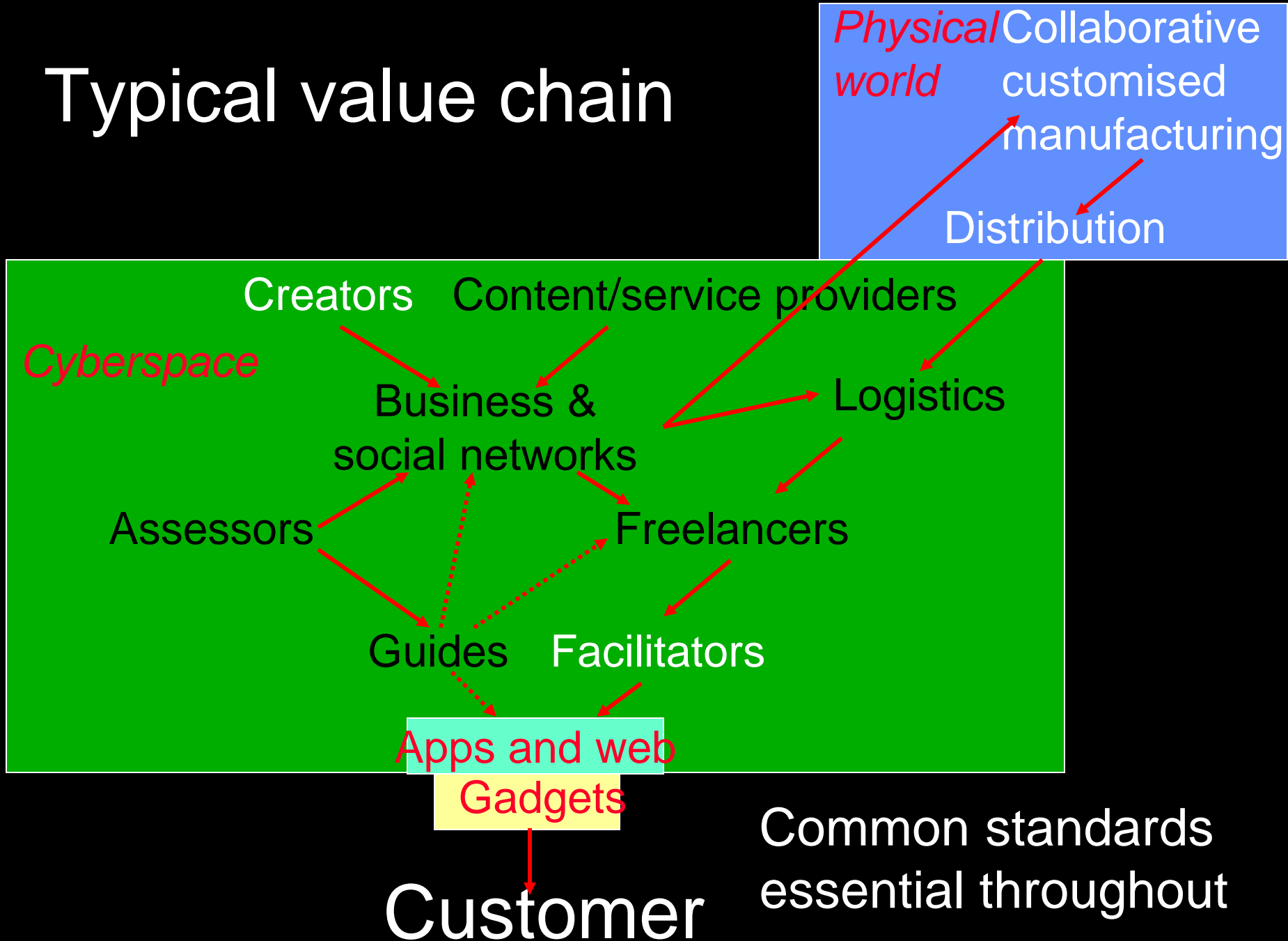
Reorganisation and restructuring

Much wider variety of ad-hoc business models with more freelancers, coops and virtual companies



Some kinds of companies need lots of capital or infrastructure, others can more easily be decomposed and restructured. But none are invulnerable to change.

Typical value chain



Adaptability & Agility

Today

Tomorrow

Focus on being agile and adaptable, not best in class

Risk taking pays dividends in periods of rapid change

Optimisation is only a good strategy in a stable environment. Nature shows us that in a rapidly changing environment, adaptability is a far better strategy.

*Day
after*

*And
then?*

Changes in service delivery

Social groups and SMEs can organise into procurement communities

Many conventional businesses will evaporate or fragment

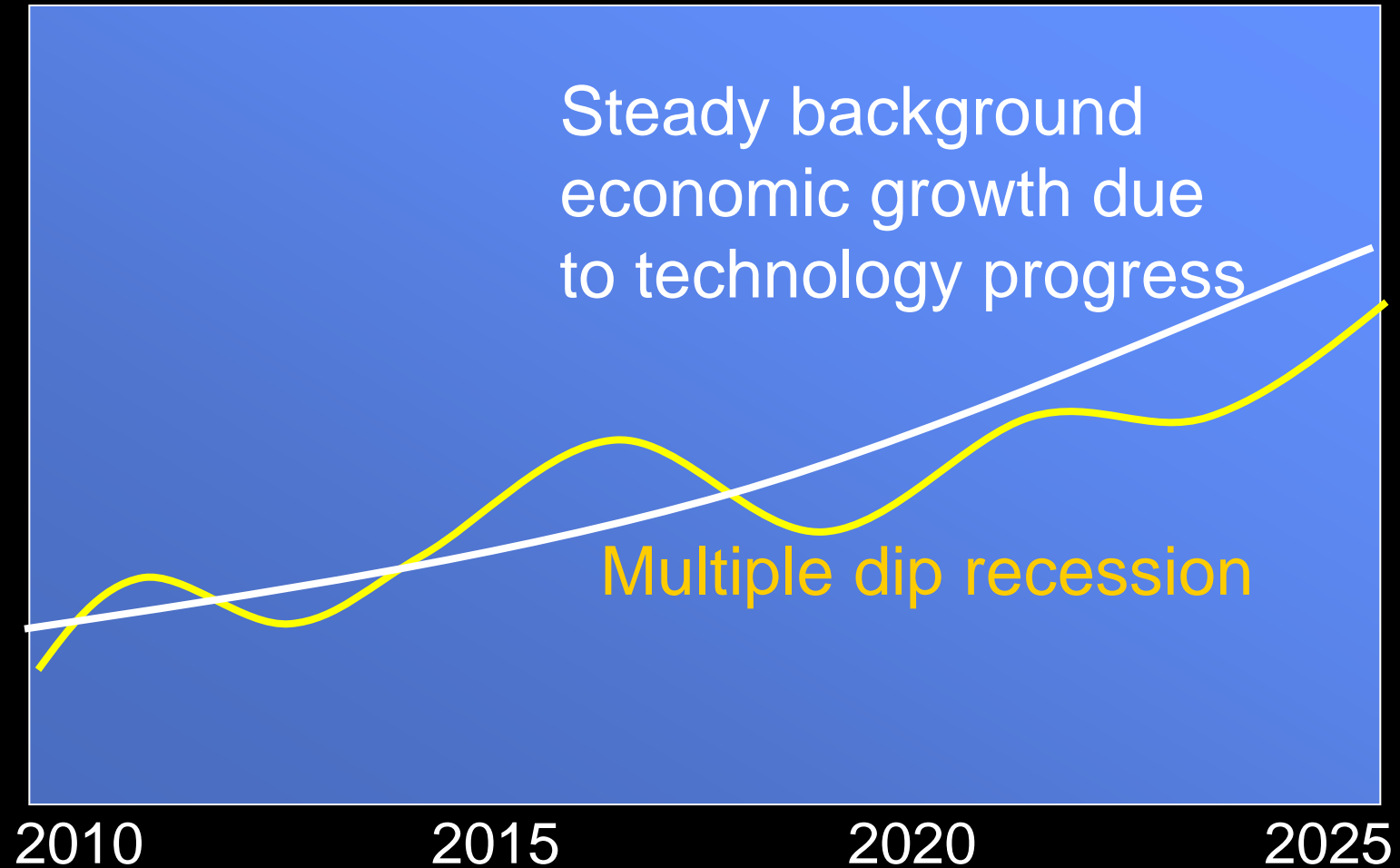
Virtual businesses will often be used to address specific market niches

Conventional businesses will still remain common

So expect to have to communicate effectively with coops, collectives, social groups and freelancers in informal collaborative groups

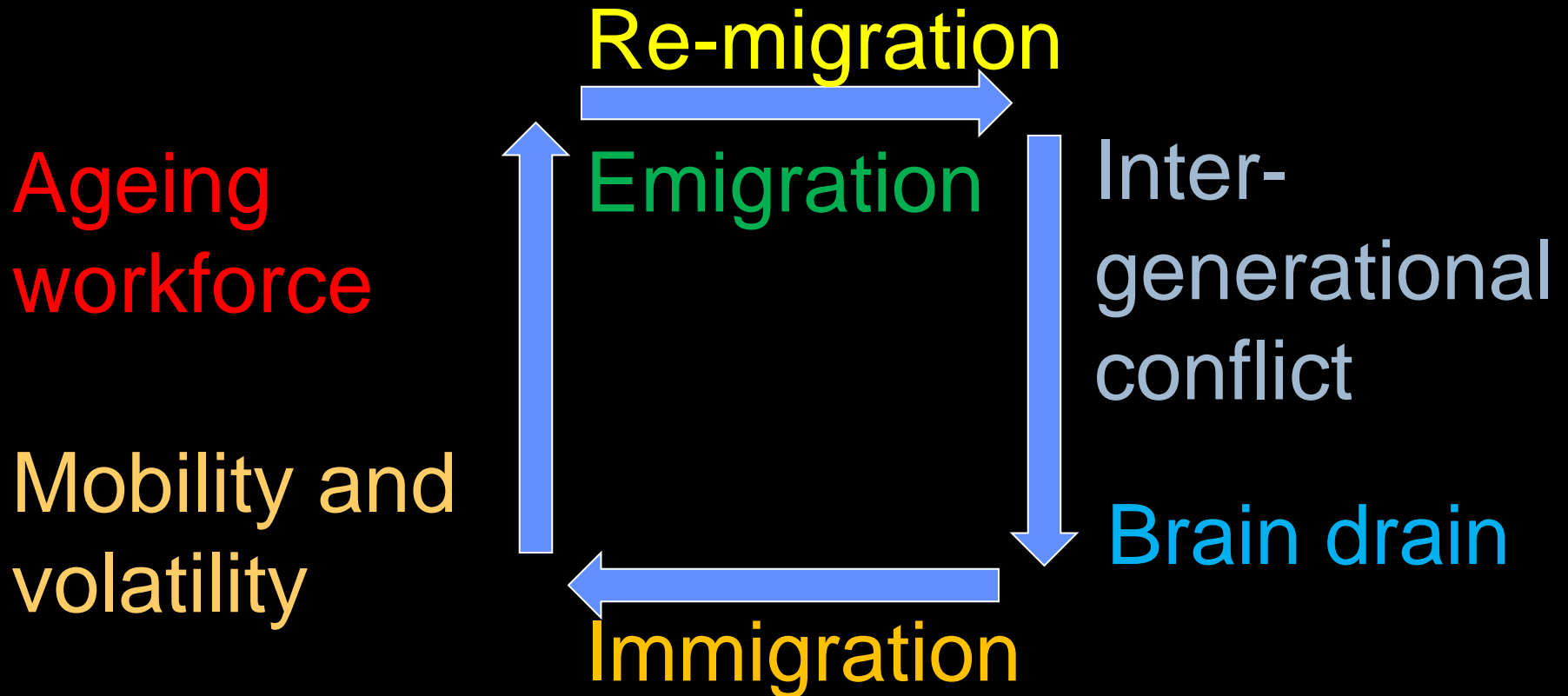
Economic environment

The shape of EU recovery



Underlying recovery and latent growth due to technology progress will be undermined by negative impacts of delayed cost-cutting, global wealth levelling, environmental levies, pensions, and intergenerational conflict

EU Population churn




Increasing regulation



Summary Business Changes



Sector winners and losers



Centralised manufacturing
High Street shops
Knowledge based jobs
Bricklaying/plumbing etc
Administration
Architecture
Driving
Machine operation
Companies
Finance
Agents
IT
Energy production



Desktop manufacturing
Try-on outlets
Human skill based jobs
Law, regulation
Business facilitation
Modular prefab construction
Personal services
Virtual world design
Advice/Counselling
Caring
Entertainment, sport, arts
Freelancing
Social organisations
Health care

Thank you

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