



**Looking at the future  
Learning from history**

**THE GOLDEN AGE AHEAD  
IS BOTH DIGITAL AND GREEN**

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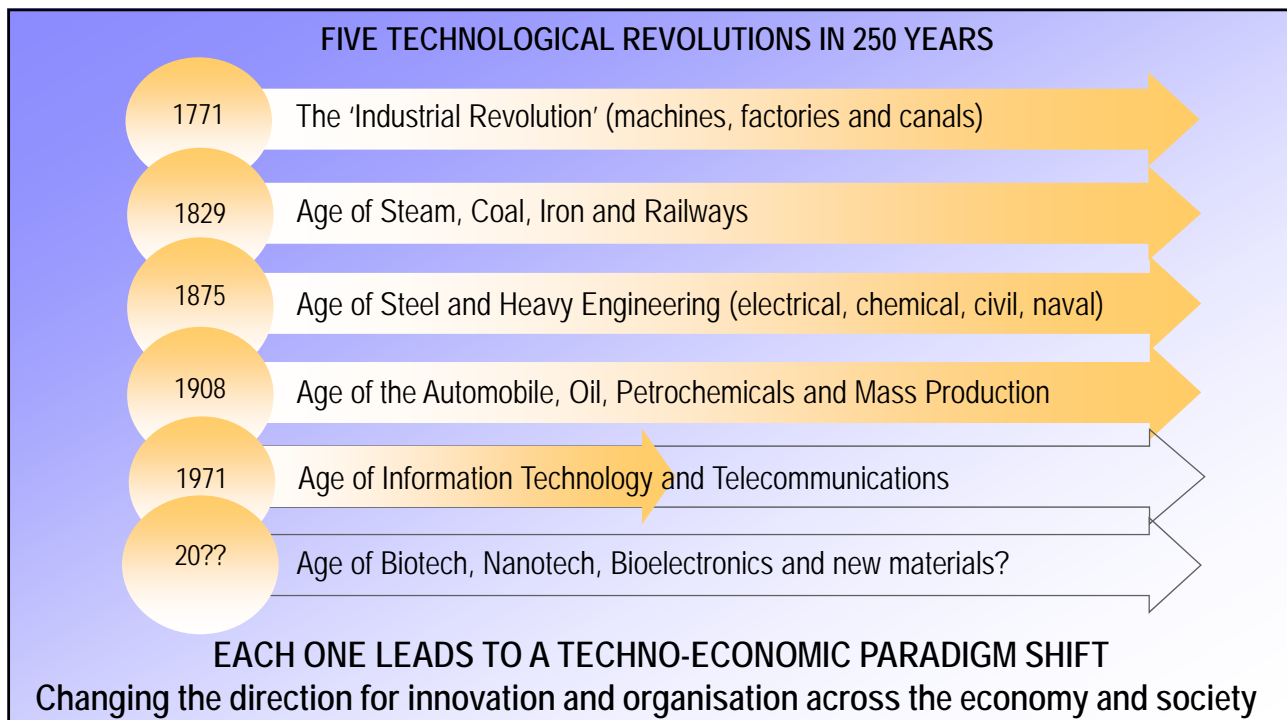
**A GOLDEN AGE AHEAD?**

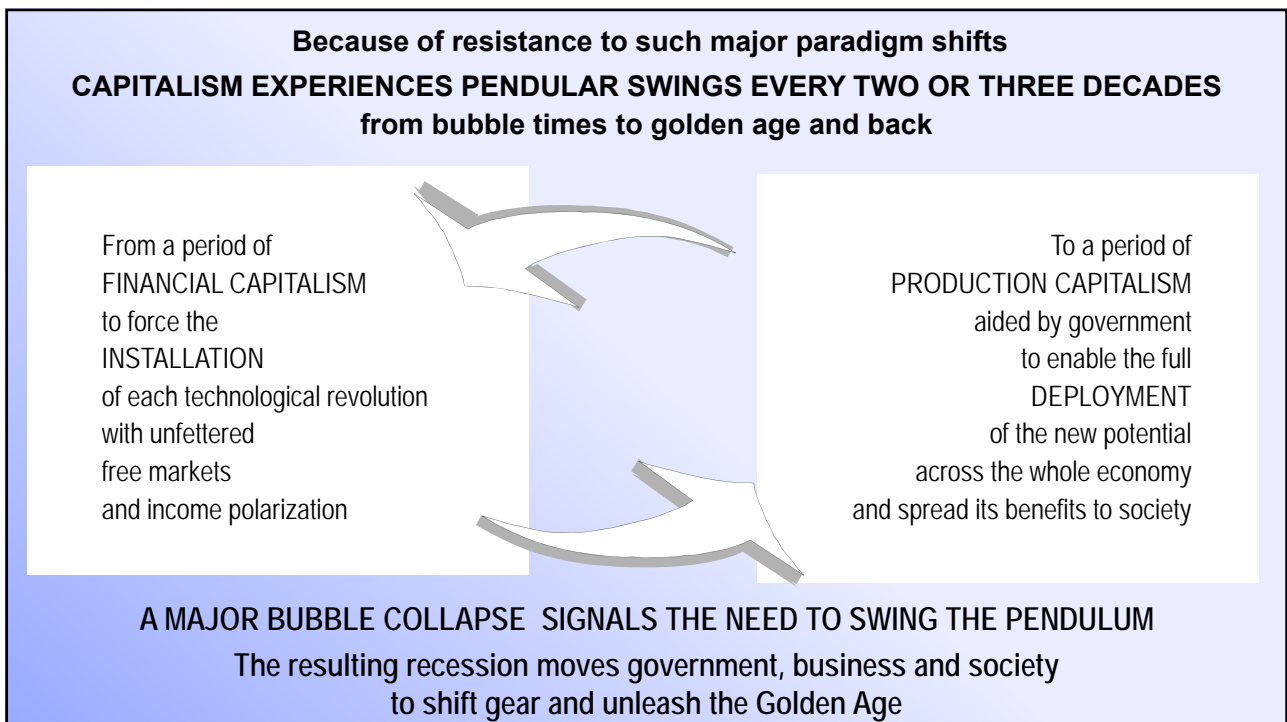
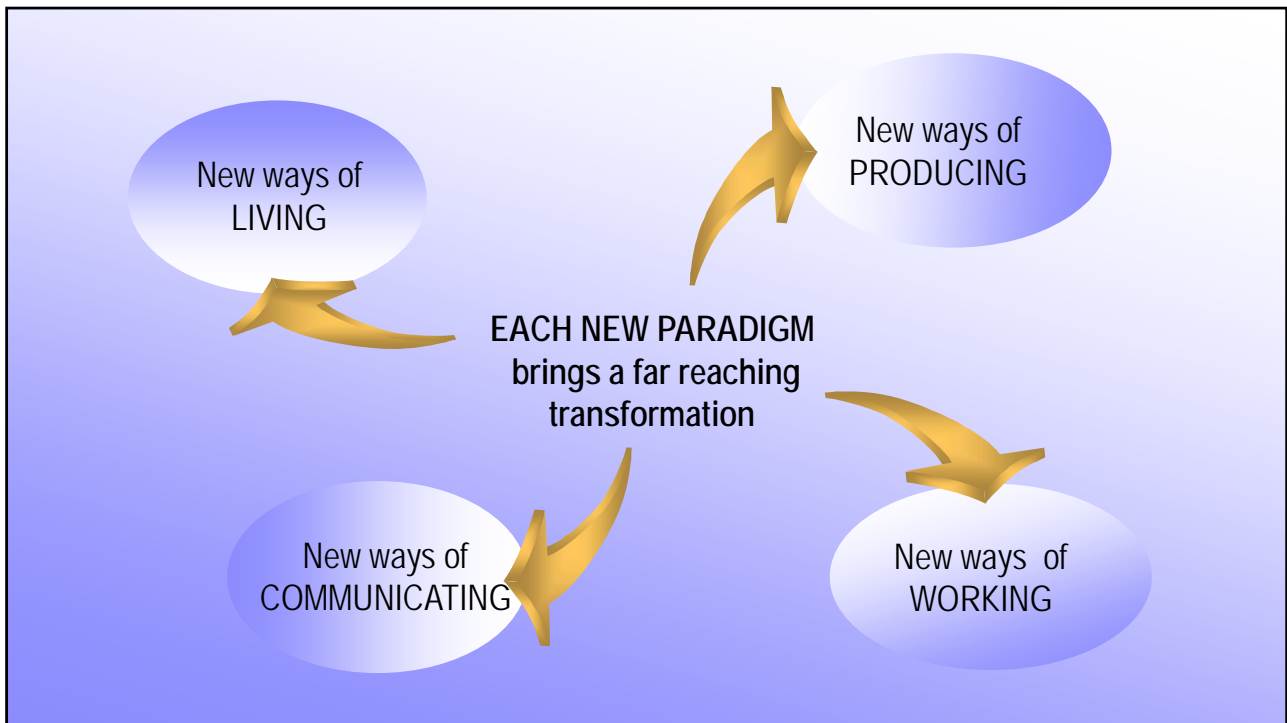
Can anybody be optimistic  
in today's uncertain world?

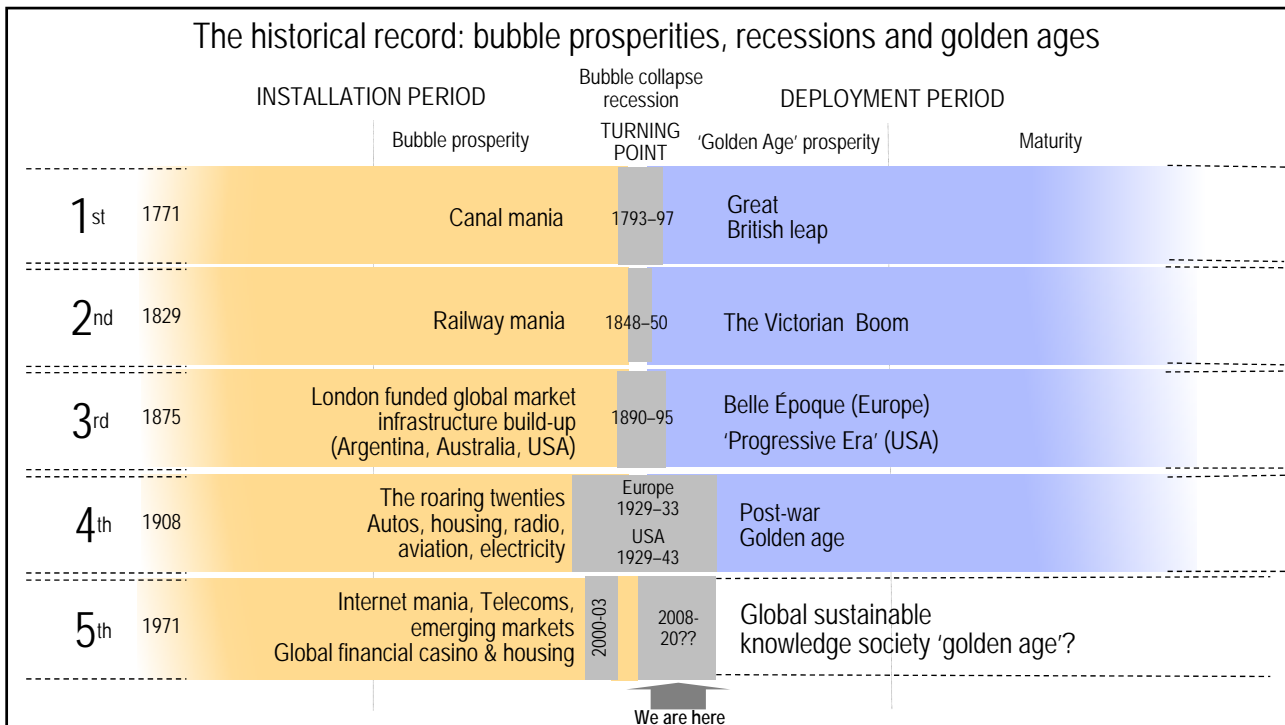
**YES!**

By having a historical understanding  
of technological revolutions  
and of how markets and governments  
influence their patterns of diffusion

The history of technological revolutions  
 teaches us  
 that golden ages have risen  
 from the recessions  
 that follow  
 major financial collapses







**BUT GOLDEN AGES  
DON'T COME AUTOMATICALLY**

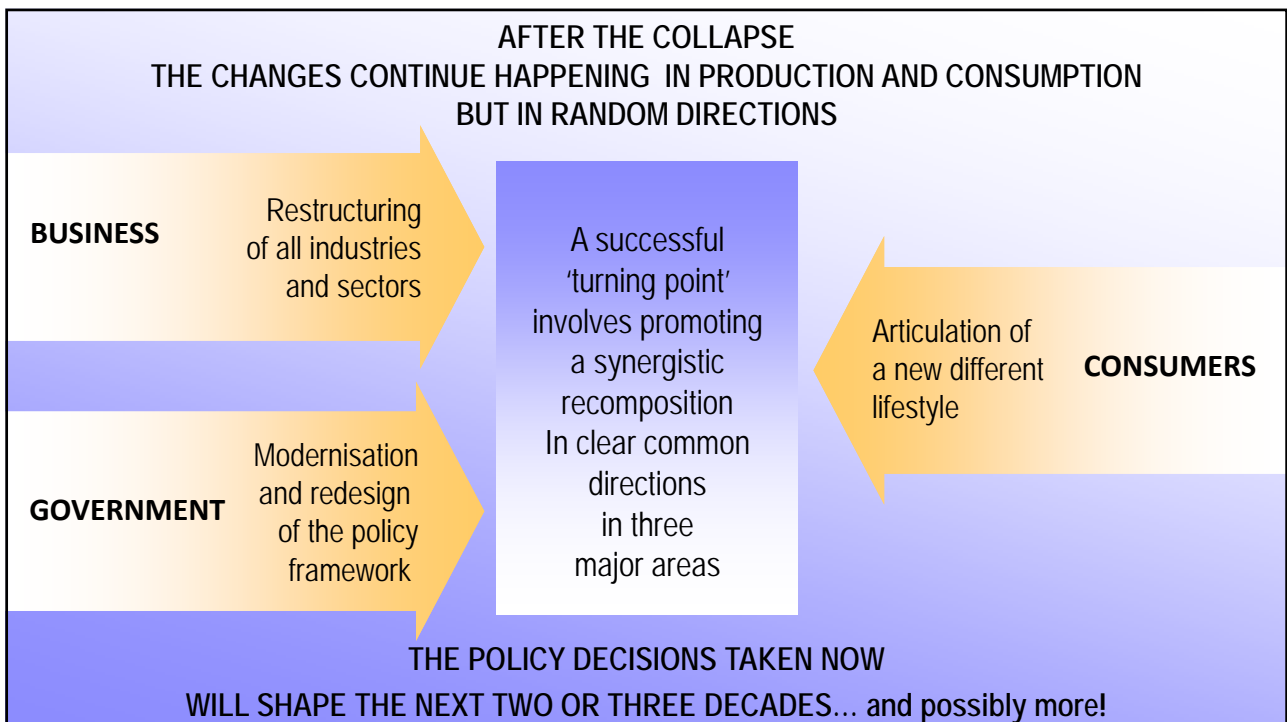
They must be facilitated by an active State  
giving a direction for innovation  
widening markets  
and ensuring social stability

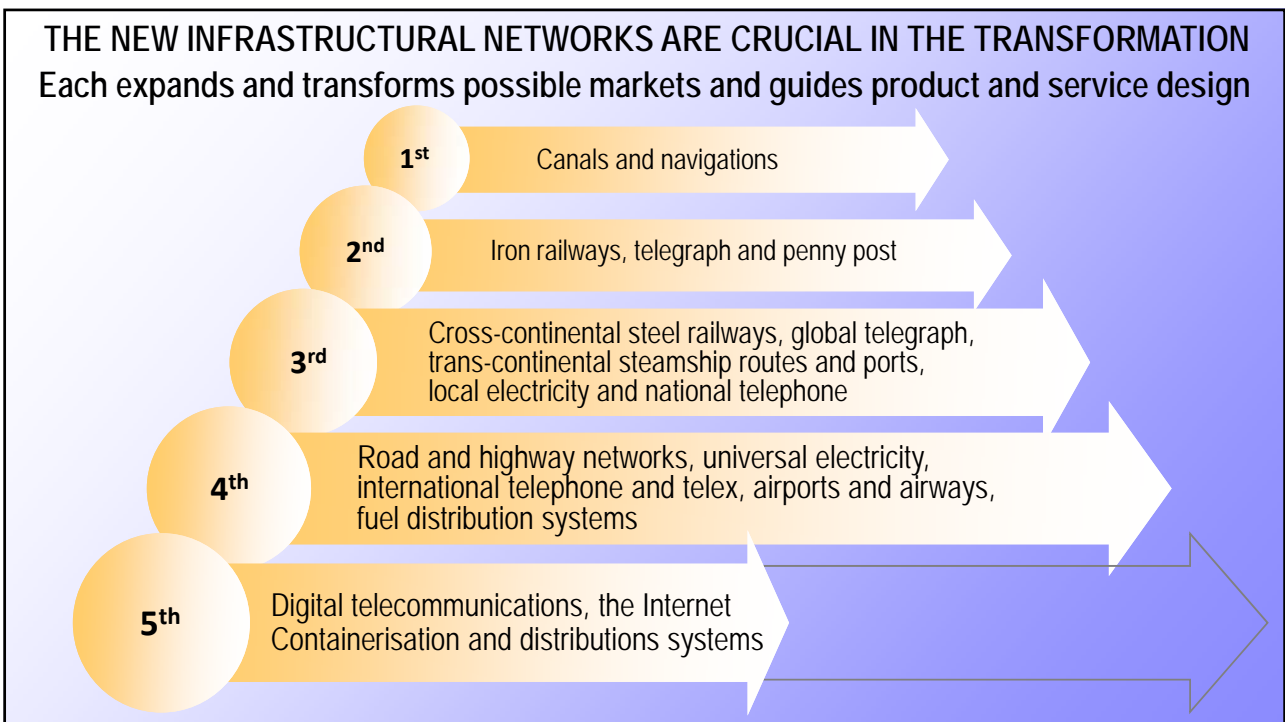
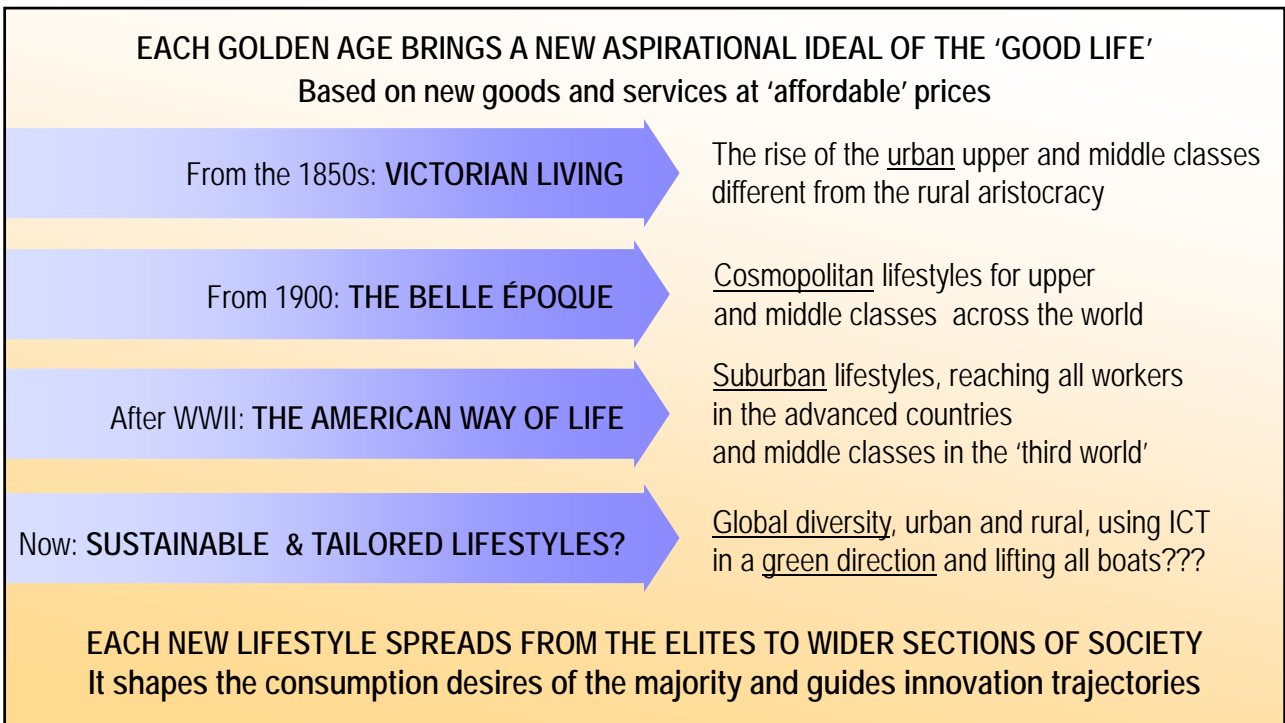
**WHY?**

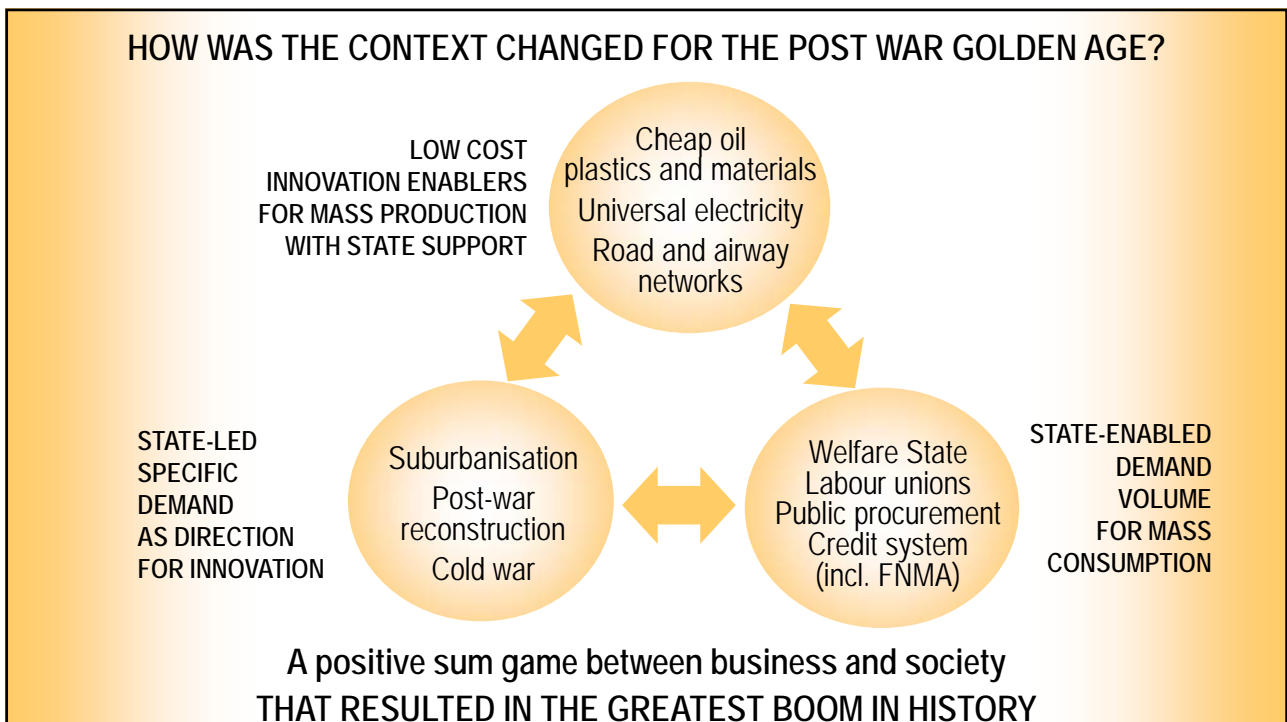
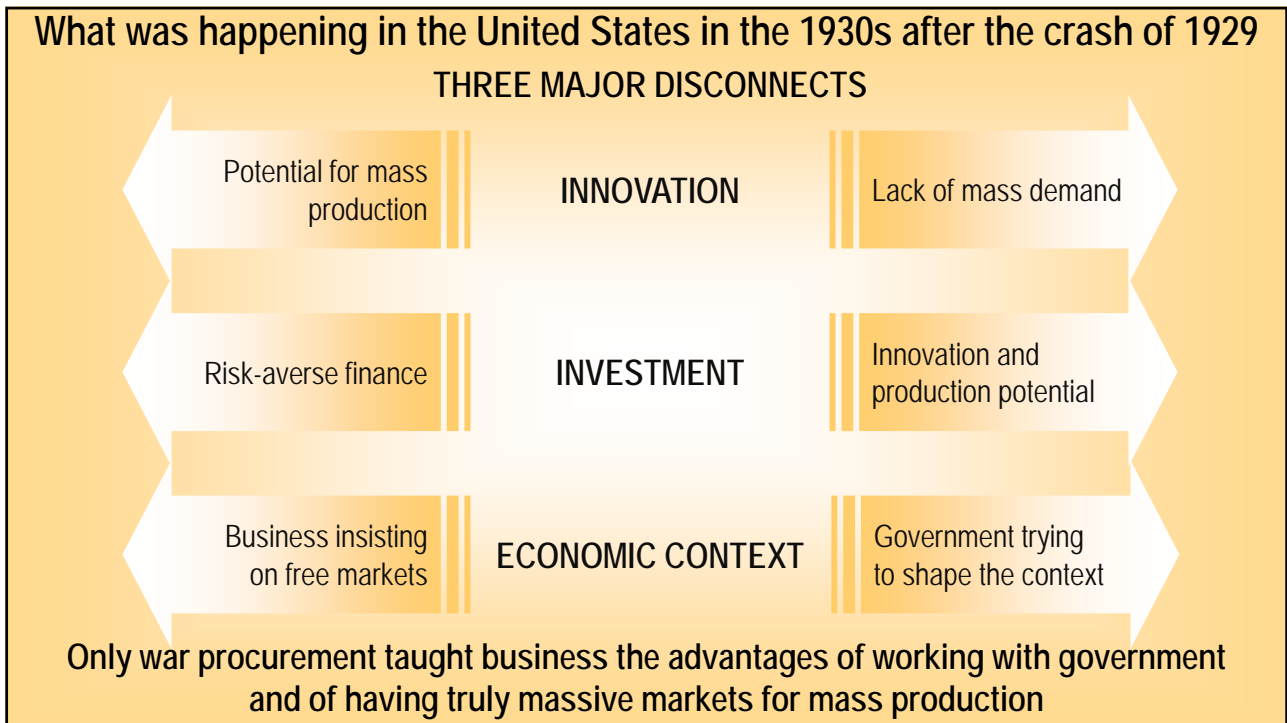
Because markets alone  
cannot change the context

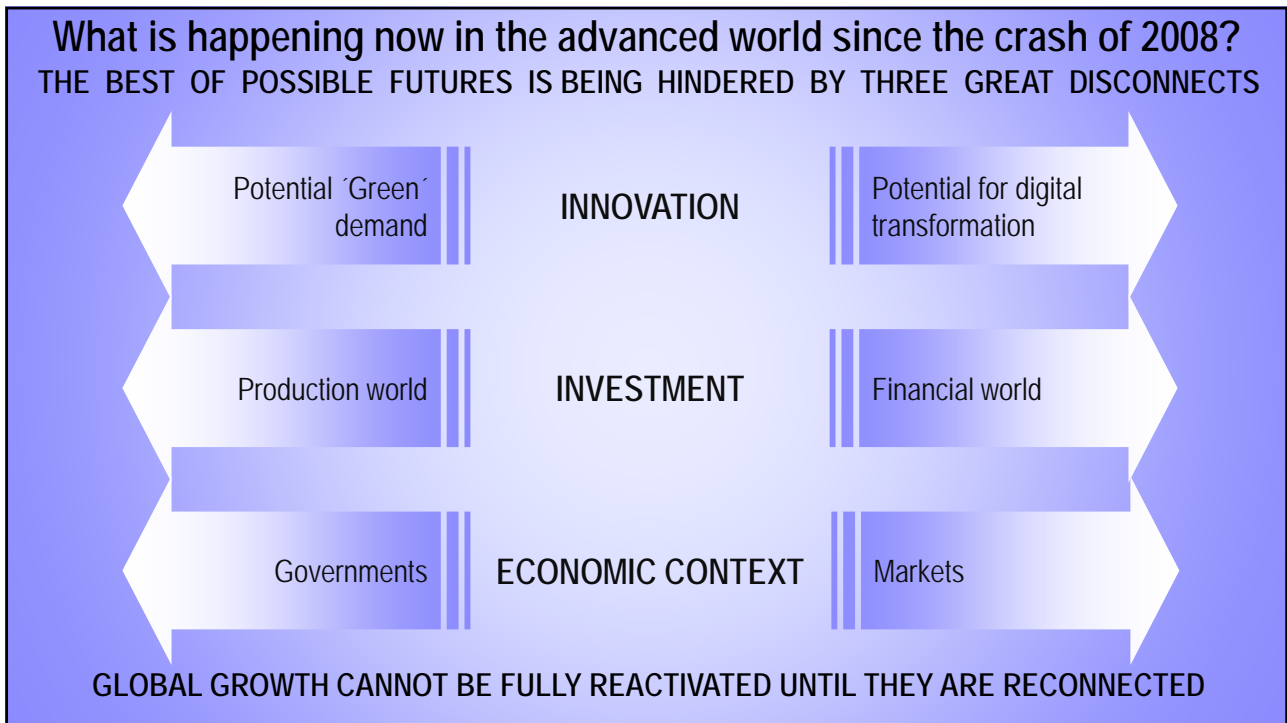
STYLIZED DESCRIPTION OF THE TWO FORMS OF GROWTH			
	INSTALLATION	Turning point	DEPLOYMENT
Production structure	Creative destruction turbulent decline and rise	Recession post bubble collapse. Need to redesign institutional framework to promote shift from finance to production and new lifestyles	Creative construction; growing synergies in skills and supplies; new distribution of big and small firms
Investment	Concentrated in new technologies and finance		Widely spread across the real economy transforming all sectors
Finance	Self-serving casino behaviour		Profitable services to the new real economy
Government	Impotent, stays out (or is pushed out)		Active, shaping markets and guiding innovation
Employment	Declining with modernization and geographical shifts		Reviving with new fabric of the economy (depending on policy) and especially with new lifestyles
Innovation	New products, services, processes and infrastructure		Institutional and social innovations helping transform production
Direction of shaping	Technology shapes society		Society shapes technology

**And people recognize when the times change from one mode to another**









## WHY GREEN?

What is its relation with ICT?

What is meant by 'green growth' ?



**THE INTRINSIC CHARACTERISTICS OF ICT ARE COMPATIBLE WITH 'GREEN'**

The paradigm shift that began in the 1970s has gradually made that clear

FROM THE LOGIC  
OF CHEAP ENERGY (oil)  
for transport, electricity,  
synthetic materials, etc.



TO THE LOGIC  
OF CHEAP INFORMATION  
its processing  
transmission and productive use

Preference for tangible products  
and disposability  
Unthinking use  
of energy and materials

Preference for services  
and intangible value  
Huge potential for savings  
in energy and materials

Unavoidable environmental destruction

Potential environmental friendliness

**SO DIGITISATION AND GREEN ARE 'MADE FOR EACH OTHER'**

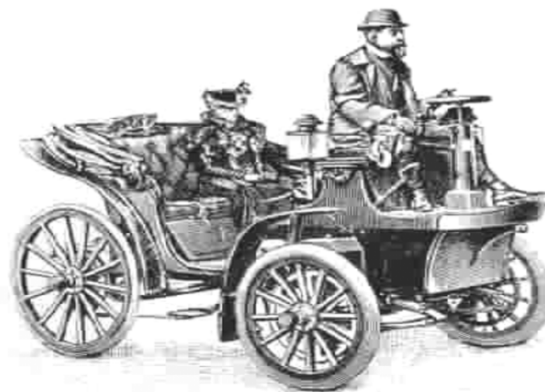
The environment is not the problem... It's the solution!

Dynamic growth can occur with a radical increase in the proportion of intangibles in both lifestyles and GDP  
**BUT THE NEW POTENTIAL IS ONLY SLOWLY EMERGING**

**WHY?**

Because each new paradigm  
must at first be  
still wrapped in the old

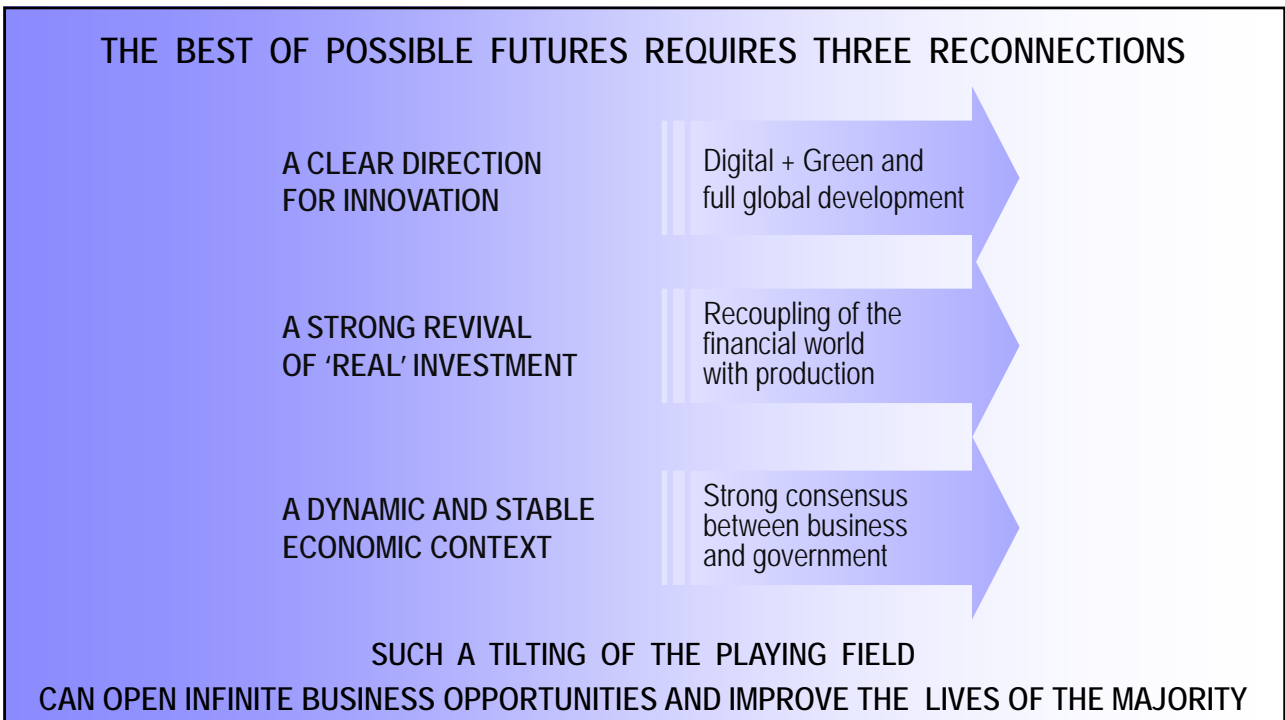
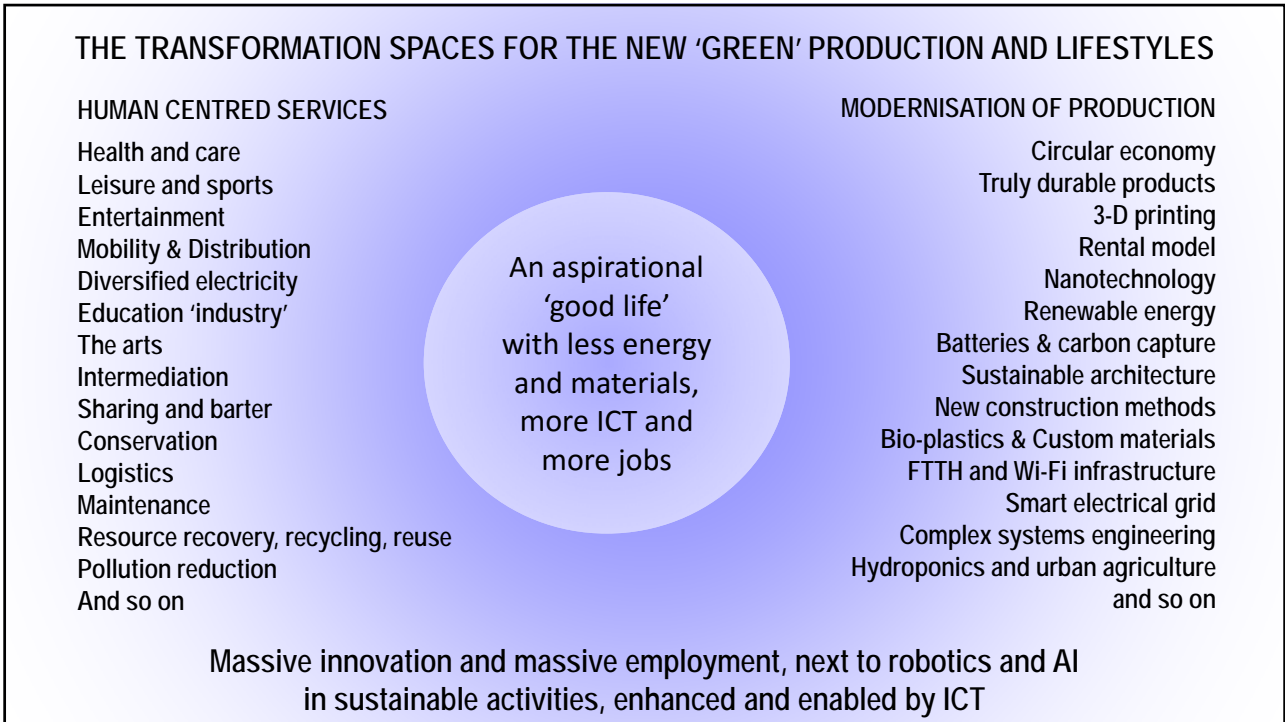
Early automobiles looked like horse-driven carriages



One of the early automobiles 1898

Reproduction: L. De Vries. 1972

If and when the context is changed by intelligent policies, consumers and businesses will respond



IT'S UP TO ALL OF US  
TO MAKE IT HAPPEN  
AND THIS TIME THE EUROPEANS  
CAN BE THE PIONEERS

THANK YOU!

For more about all this:

[www.carlotaperez.org](http://www.carlotaperez.org)