SAP and the Age of Logistics- How to Meet Tomorrows Business Challenges

Kurt Weiss

SAP (Schweiz) AG

THE BEST-RUN BUSINESSES RUN SAP

Overview

I. A change of Paradigm

II. The changing job market – a challenge for teaching and research

III. SAP meets the challenges

IV. An animated outlook

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Overview: A Change in Paradigm

1. Homo oeconomicus
2. 150‘000 years of human history in 5 minutes
3. And then?

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Three Aspects of Homo Oeconomicus

The knowing man

The acting man

The inventing man

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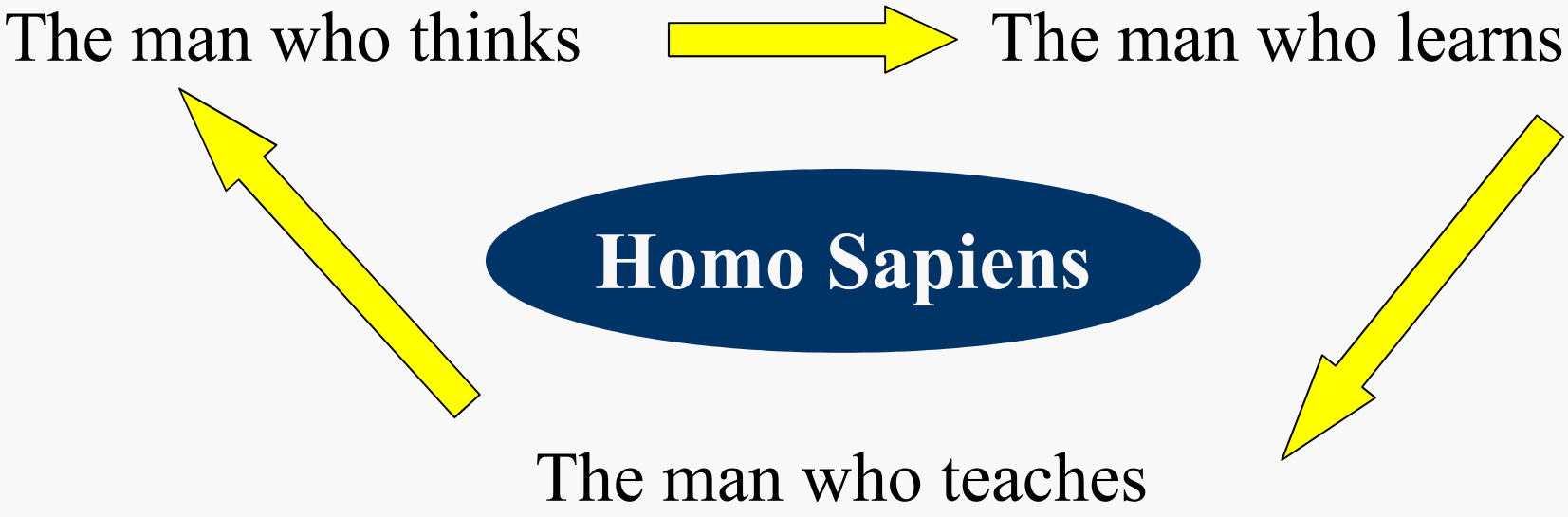
The knowing man



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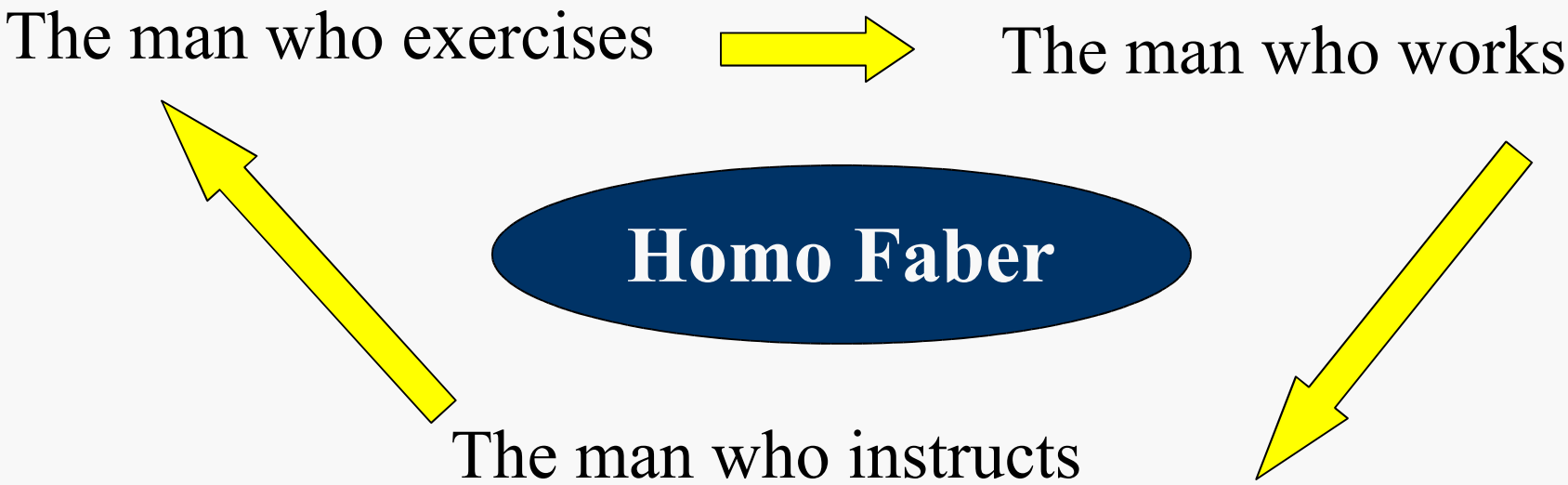
The acting man



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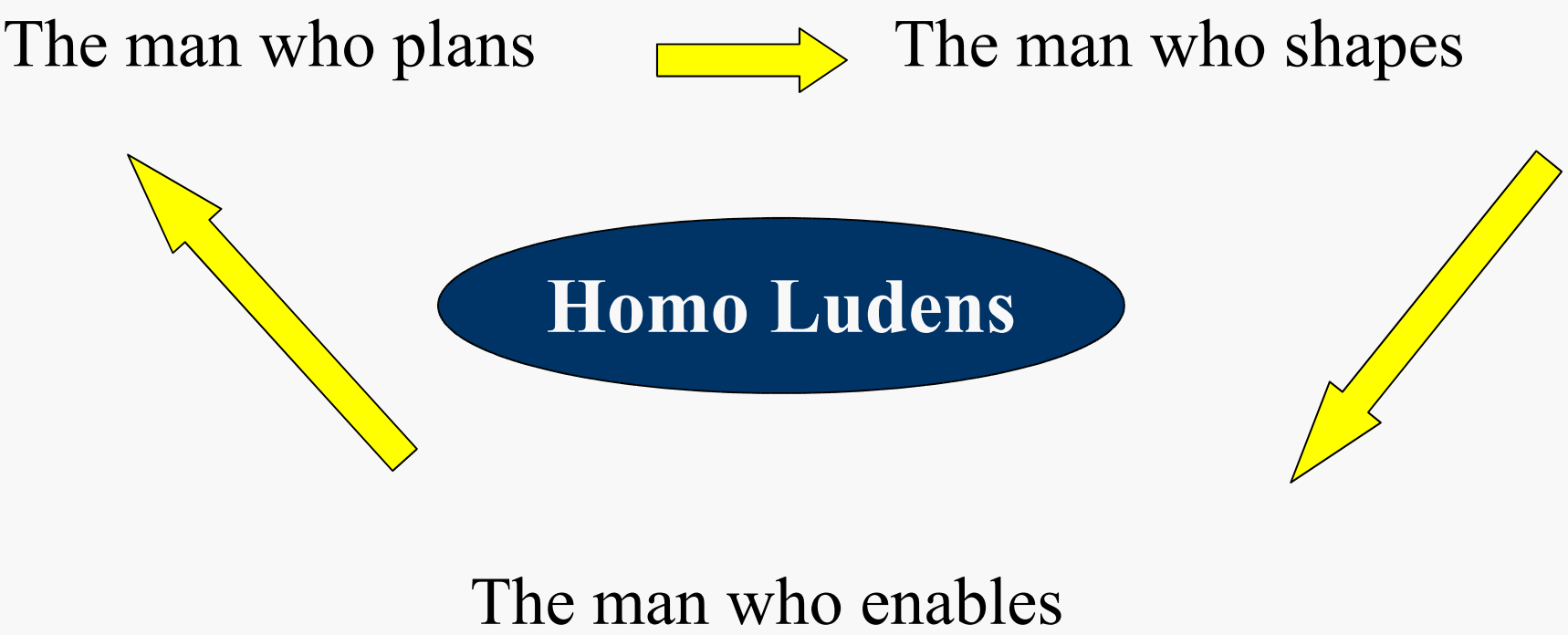
The inventing man



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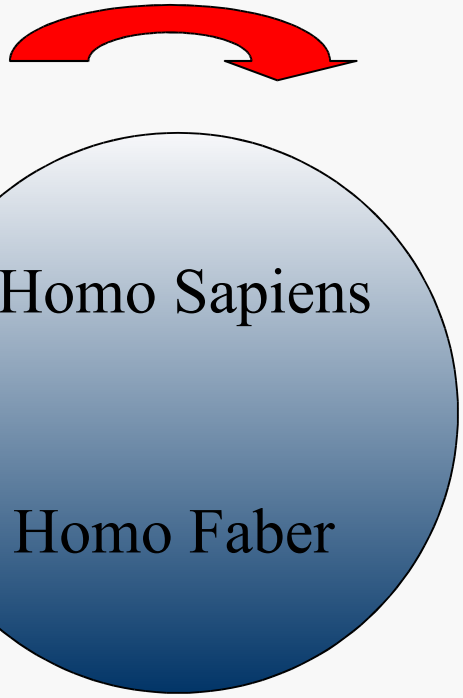
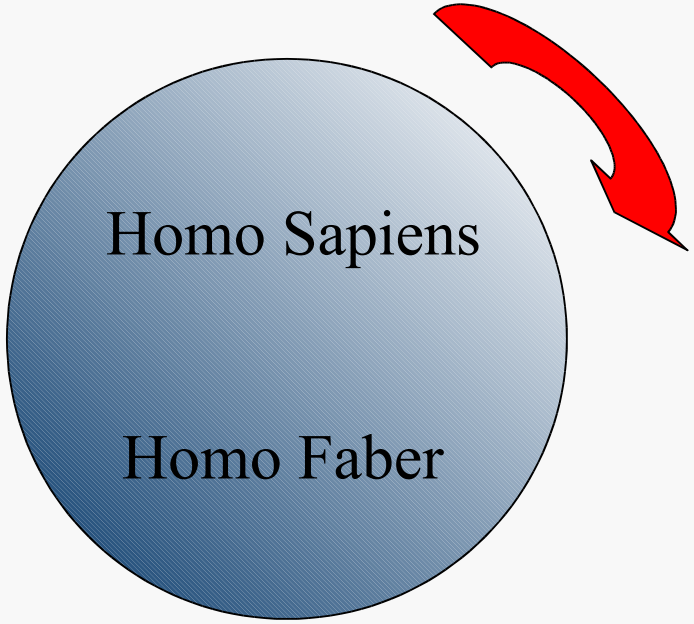
Birth of Humanity → Stone Age →

Homo Ludens





- 150‘000 years

- 10‘000 years

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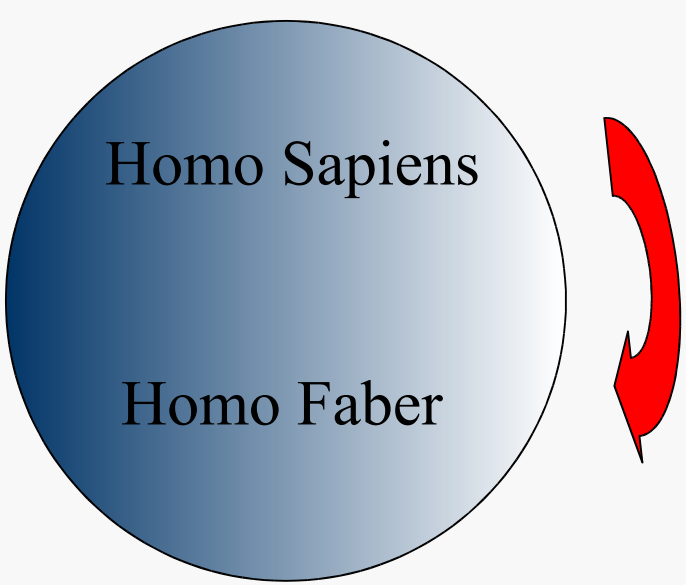
Industrial Revolution → Digital World →



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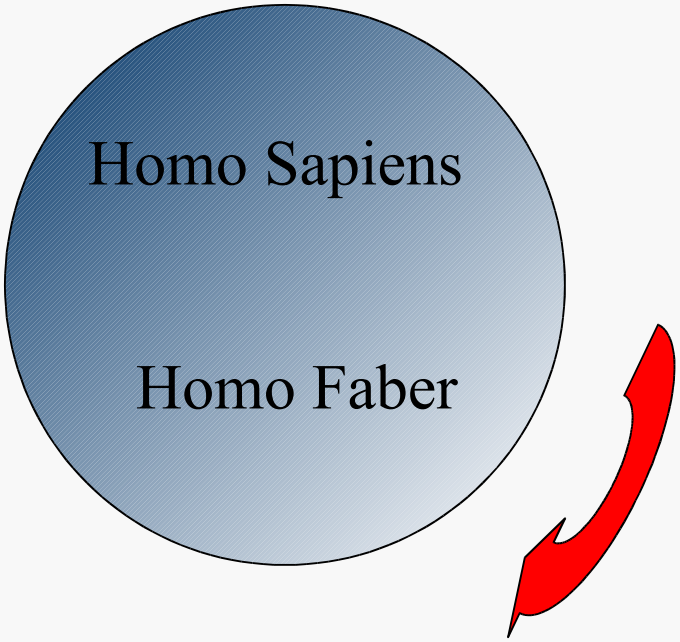

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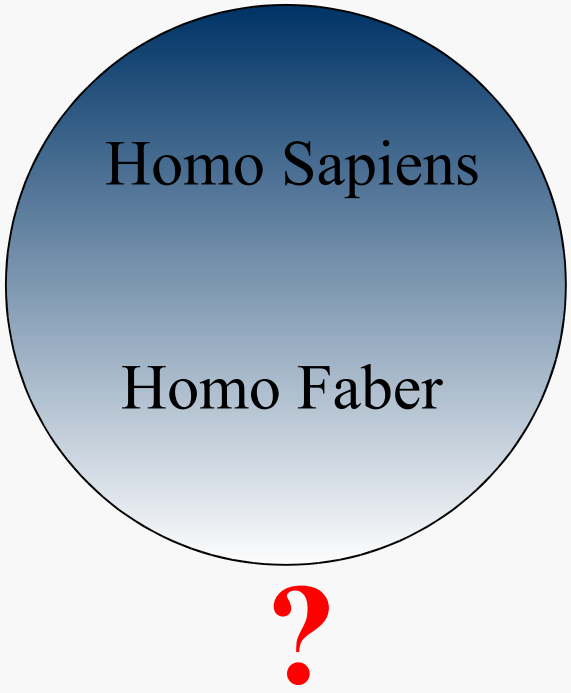
And then?



+2020 (?)

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This way?

Intelligent economy

- Few positions. A lot of project work
- High change competency
- Dominance of logistics
- Importance of Intangible Assets
- ...

Operative social structure

- As little government influence as possible
- As much entrepreneurial independence as possible
- Reasonable social security
- ...

Sustainable values

- Creative freedom
- Ecological care
- ....

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Or that way?

Totalitarian bureaucracy
Nineteen-Eighty-Four **George Orwell (1949)**

Rigorously planned economy, drugs and genetic technolog
Brave New World **Aldous Huxley (1932)**

Technology induced breakdown
Das Ereignis **Kurt Weiss (2005)**

Ecological suicide
Silent Spring **Rachel Carson (1962)**

Anarchy and terror
The Distant Mirror – The Calamitous 14th Century
Barbara Tuchmann (1978)

Autodafé
Fahrenheit 451 **Ray Bradbury (1953)**

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We stand on Crossroads

One road leads to hopelessness,
the other to utter despair.

We must have the courage
to choose the right one.

Woody Allen

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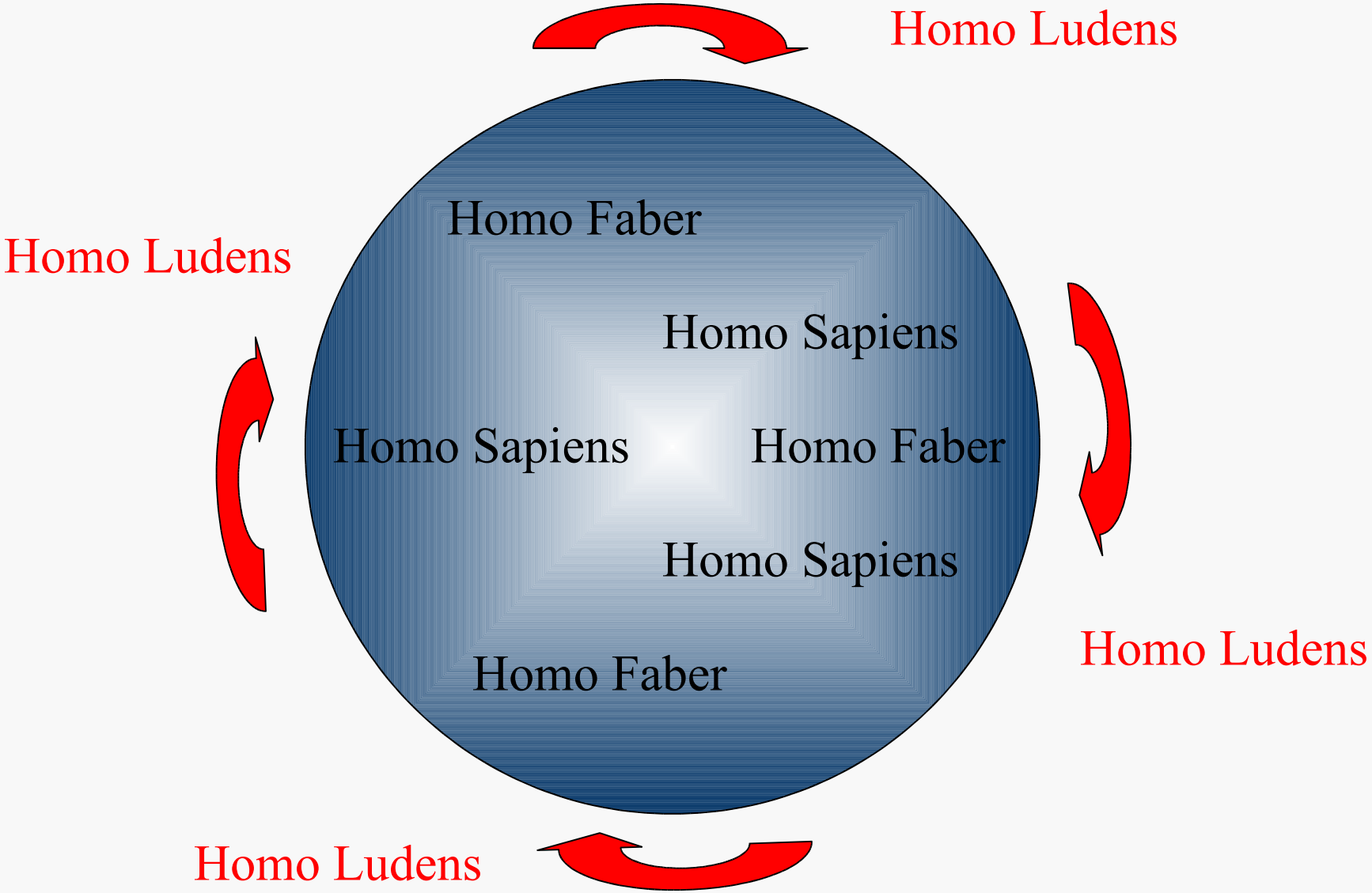
Eutopia



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What can we learn from physicists?

Why did Max Planck become a physicist and not a piano player?

„Because there are more jobless piano players than jobless physicists“ (ca. 1880)

Why could Albert Einstein not find a job? (ca. 1902)

Because there were practically no jobs for physicists (except a very few at Universities)

What does Niels Bohr know about the future?

„Predictions are difficult. Specifically if they are about the future“

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5. Trends in the job market
6. Challenges to teaching and research

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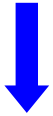
Global Trends (Scientific American 09/05)

Young people

Old people

more/higher (2000)

Rural people



Town people

less/lower (2010)

Birth rate

Death rate

Poor people/rich people

2 (1950) → 6 (2050)

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Work is replaced by machines

1750: Industrial revolution:

Manuel Work is replaced by machines → many jobs vanish → productivity increases → new jobs

1950: Industrial robots revolutionize production:

Conveyer belt work is replaced by machines → many jobs vanish → productivity increases → new jobs

2005: Software revolutionizes logistic structures:

Mental work is replaced by machines → many jobs vanish → productivity increases → new jobs

The future happens Even without you

Everything becomes more intelligent

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What are man's strengths?

Semantic vs. syntax: the difficulties in language translating, the misunderstood general

Context recognition: chess experts vs. chess laymen

Gestalt recognition: A bicycle steering device and a saddle → bull (Picasso), the power of caricatures

Associative vs. address determined memory devices:
The expert paradox

Creativity: How much time does is take for a herd of monkeys to write a Shakespeare sonnet by racing over a typewriter?

Emotions: A poem by Heinrich Heine

Work on your strengths, not on your weaknesses!

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Where are (probably) jobs created? (Remember Bohr)

Information disentangling: Google sorter, entropy annihilator,..

Sales consultant replace cashiers: RFID, shop around the corner in the supermarket

Bridge builder: disciplines merger, cultures connector, globalizer, ..

Technology adapter: Simplicity key board stenography, manuals,..

Process experts: business process mappers, method- and social competence creators

Communication consultants: contents mediators, knowledge transmitter, entertainer,..

Development helpers: local self development → new consumers,..

It's all about productivity and value added

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Disciplines, which (possibly) create jobs

Nanotechnology: techniques, surfaces, medicine,

Biology and IT: agronomy, medicine, livestock-breeding, ..

Business and physics: transaction optimization using thermo dynamical methods, ..

Business: teaching and learning, applied economics, methodical- and social competencies, ..

Geology, space sciences: finding new resources, ..

Linguistics: communication methods, fighting the tower of Babel,..

Transport technology: ubiquitous work

Transdisziplinarity. We all are challenged!

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Some job market trends

Flexibility rises: short notice work schedule changes (breathing factory - Fujita Siemens), project work vs. permanent positions, ..

Decreasing bureaucracy and administration (or collapse…): thinking and acting in processes, transaction optimization, software,..

Job quality increases: more training, different (interactive) training, more social and methodological skills, lifelong learning,..

Productivity increases: longer working hours, better albeit more complex, tools,..

Mobility increases: you better be where your job is,..

Do not defend old jobs but create new ones!

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Some challenges for teaching and research

Transdisciplinary thinking and acting in processes as a prominent curriculum item

Interactive teaching and learning (why learn from books, it's all written there)

Emotional teaching and learning (E-Learning)

Change competency as a curriculum item

Transdisciplinary research based on a appropriate structure of unversities

Our knowledge is a small island in the middle of the huge ocean of ignorance. As we learn it grows. But it still is next to invisible In the huge ocean of ignorance But:

The coast gets longer: There is more to innovate!

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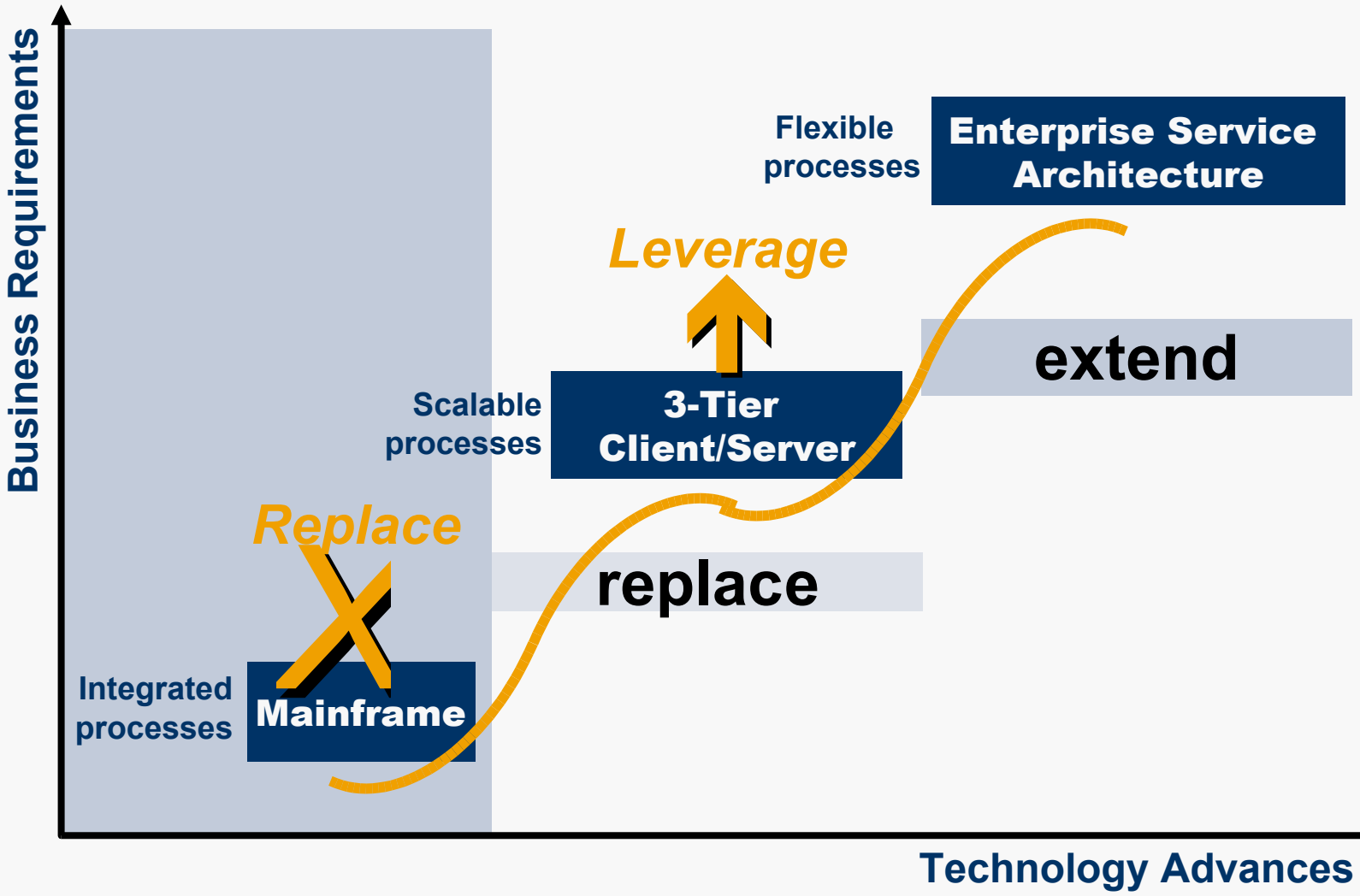
EVOLUTION TO A FLEXIBLE ARCHITECTURE

LEVERAGING EXISTING INVESTMENTS



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Process Innovation & Product Innovation

Microsoft: From Word, Excel, PowerPoint,.. developed as separate products → OFFICE SUITE with unified access to data, tools and tricks, ..

SAP: From modules such as FI, CO, SD,.. and solutions as CRM, SCM, SEM,…→ BUSINESS SUITE, with unified access to data, tools and tricks, ..

Netweaver

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The 4 Integrations

Integration of people → SAP Enterprise Portal: role based connections, mobile infrastructure,..

Integration of information → SAP Business Intelligence: unified data management, hub – spoke systems,…

Integration of processes → SAP Exchange Infrastructure: added value chains, End to end connections,…

Integration of technique → SAP Web Application Server: where everything runs, the behind the stage,..

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What does this mean?

Teamwork along the total value adding chain becomes an option,..

Open architecture for applications such as Documentum, Lotus Notes, Microsoft Exchange; faster access to internal and external information of all kind,…

Improved collaboration with partners and customers; reduced cost (administration) through complete integration of all relevant components for any given process,…

TCO, i.e. more IT resources for investments

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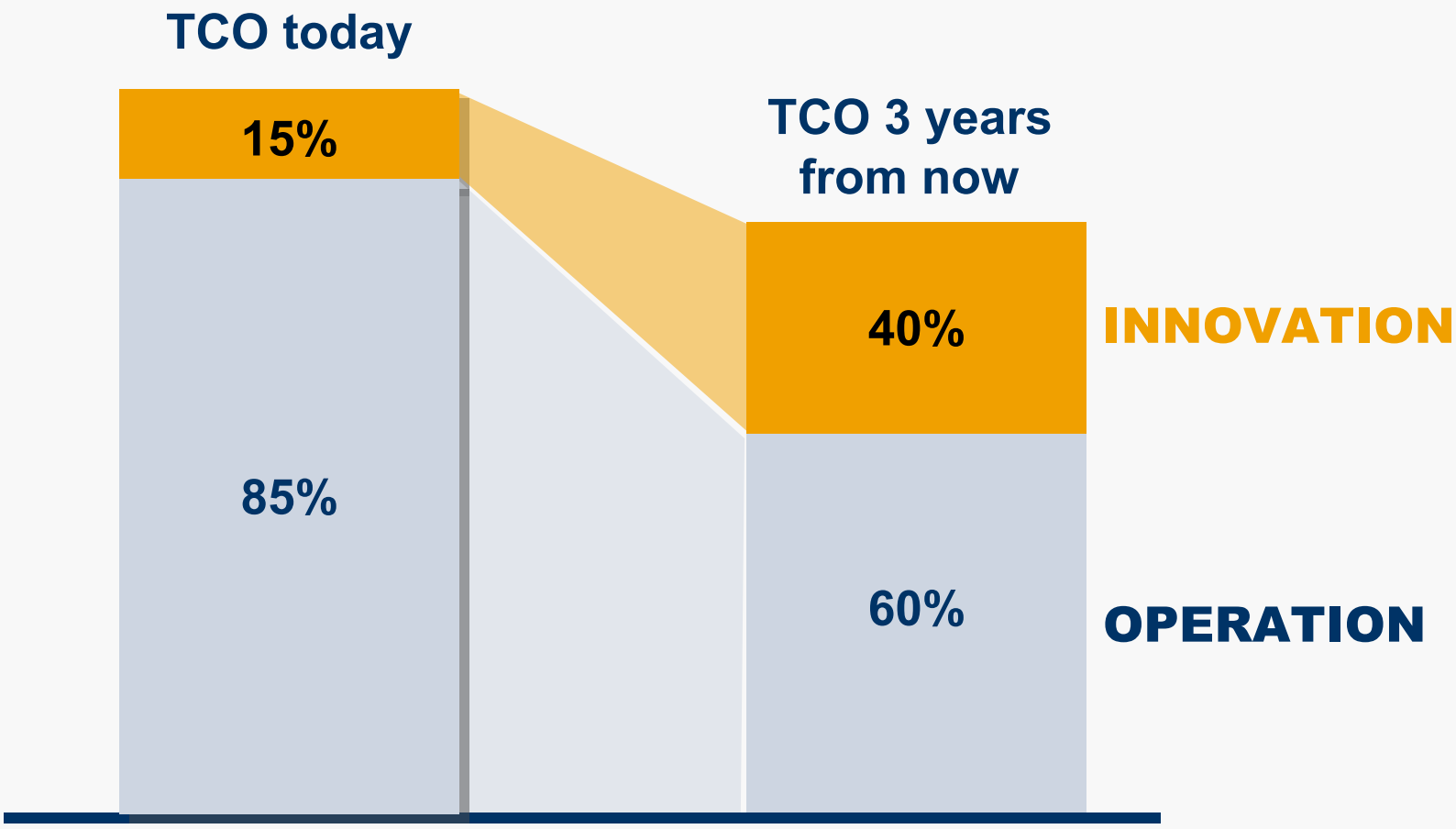
MOVE TO A SUSTAINABLE COST STRUCTURE

REDUCE TCO AND ENABLE INNOVATION



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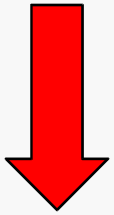
And above all....

Rigidity of IT is reduced



The company acquires

Change competency

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On the road towards the real time company

The captain of a boat or aircplane always has in Real Time the possibility to know all the relevant parameters of the crafts journey

What about the business captain?

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What is in store (as an example)?

Radio Frequency Identification Device

Real time payment (retail, supermarket)

Real time stock-taking (order on demand)

backtracking (pharmaceutical industry, military,..)

Maintenance and surveillance of difficultly accessible objects (Frankfurt airport)

Libraries

Reality Online

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That's it

Thank you for your

cooperation

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