

Output of the “Knowledge Society” in Europe, - decoration for cyberspace or products, sustainable jobs and industries?

Willi Glettig

CEO, Dipl. Ing. Chem., ARACI, AAIM ,

LCC Engineering & Trading GmbH

Steinbruchstrasse 4

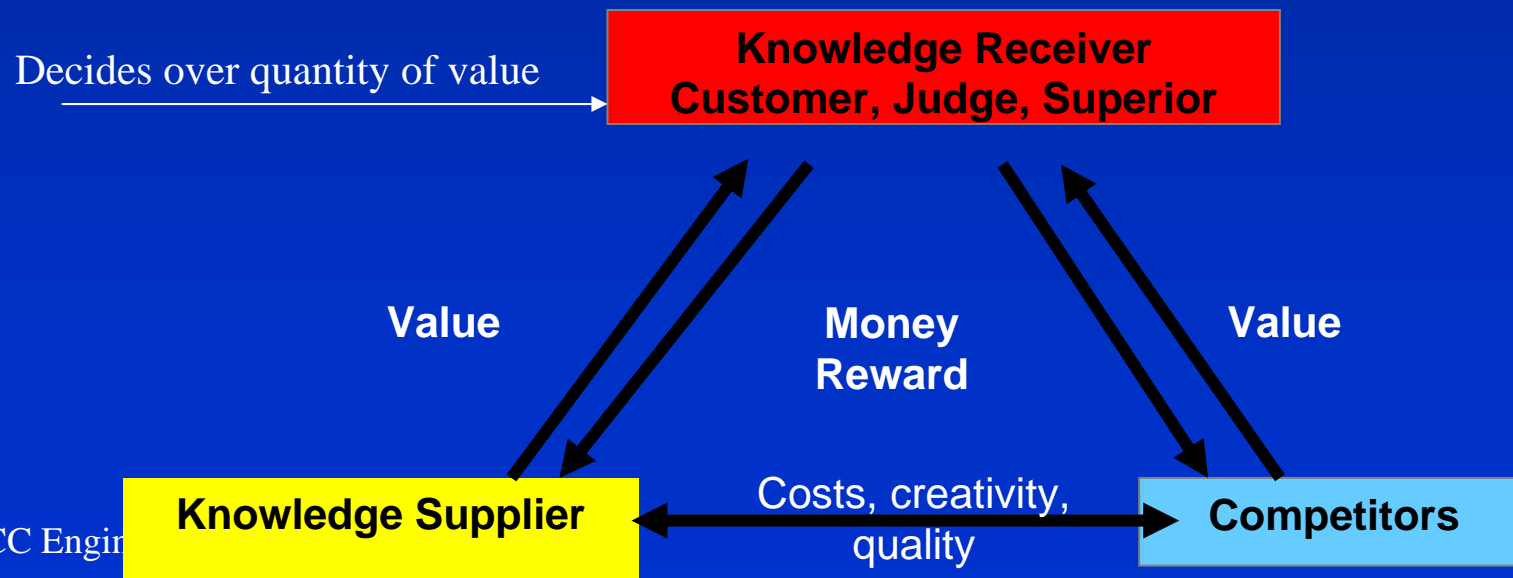
CH-4622 Egerkingen

Tel.: +41 62 398 52 71 , Fax: +41 62 398 52 74

E-Mail: willi.glettig@chemsupply.ch , URL: <http://www.chemsupply.ch>

Knowledge ?

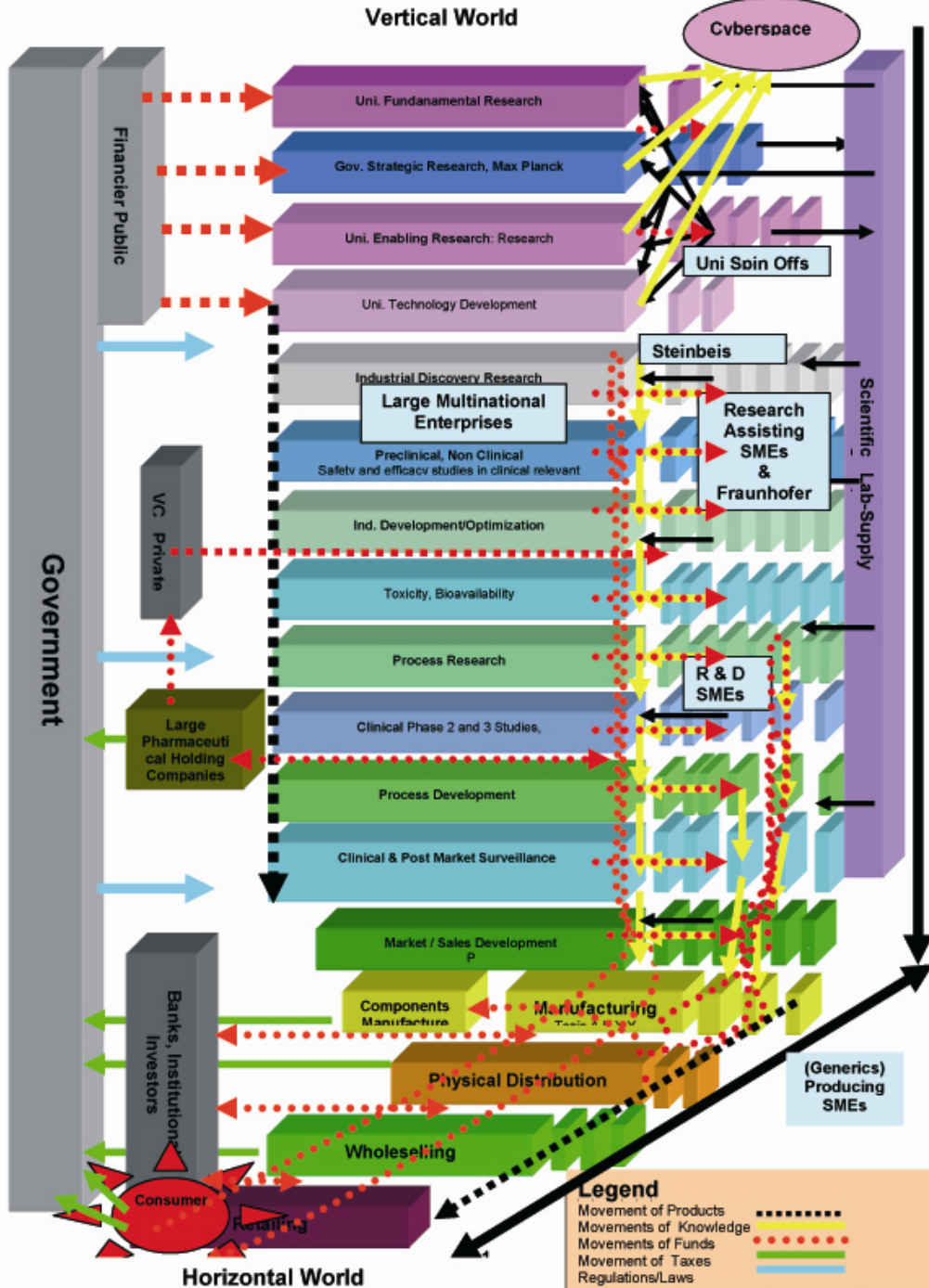
- Genesis = research, experiments and innovation
- Data + Information combined in a unique way
by man or machine = Knowledge.
- Form of power to obtain a competitive advantage.
- Economically useless if not converted into tangibles that can be exchanged with some form of reward.



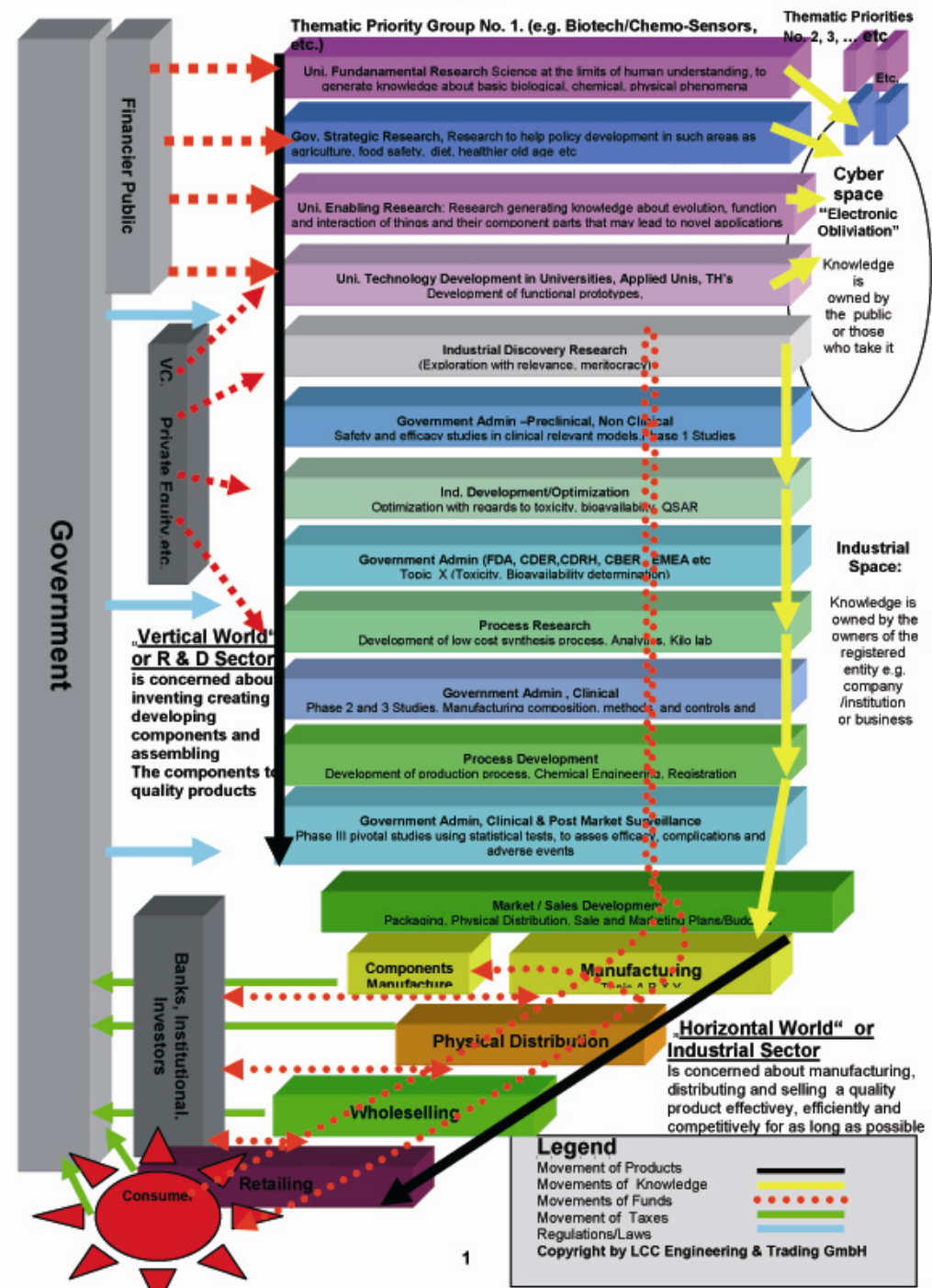
SME participation

- EU Philosophy: Our future will be ensured only through the proper and effective use, -the collective use of our minds
- LCC is a research driven SME that benefited greatly through participation in a number of research projects
- Part of the global village:
 - Everybody is forced to compete
 - SMEs to focus on niche products and services
 - Hunger to succeed.
- SMEs want to:
 - Improve value in what they are doing,
 - Increase their market share,
 - Accelerate business growth
 - Reduce risks.

Vertical World



Vertical World



Who wants competition?

1. Introducing new and superior products is a must
 - Anything new = threat and disruption to existing system.
 - Accelerated change cost expanding amount of money (market education and depreciation).
2. System owners prefer to consolidate diversity, to reduce competition by mergers & acquisition and restrictive laws.
3. Newcomers with much better products and services assure renewal and expansion of any economy.
4. Governments have the power to balance/regulate these two competitive forces.
5. Government invest 1- 3 % GDP in Public Research

Tax payers fund to benefit the public

Tax payers want: Work, job security, fair and equitable income, good health systems, safe environment

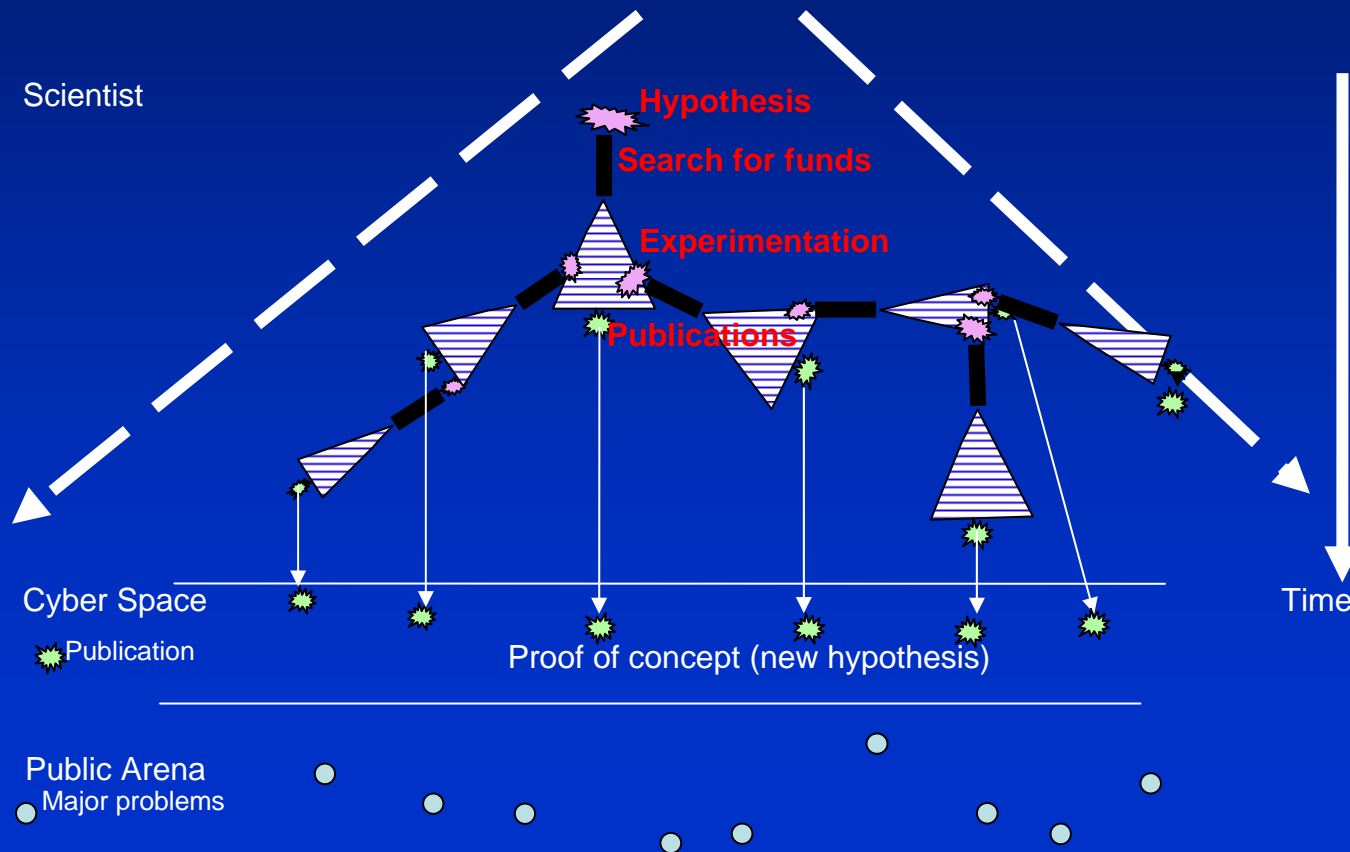
Two possibilities to finance work and job security

1. Expansion of public sector with tax payers money
2. New business activities in private sector such as manufacturing and selling superior products and services (knowledge)

Institutional Research Administrators want: To expand research community to increase publication of research data and to present data to the public through cyberspace. Publish or perish

Out-put of the knowledge society?

- “Divergent research community” preoccupied with production of data and information for cyberspace with no distinct owner or beneficiary



Output is a „proof of concept“ = a new hypothesis how a problem could be solved. It is not a proof that this is the „best“ way to solve a particular problem

Examples from the real world.

- Example 1: Bloodsubstitutes
- Supply of banked blood is declining while demand is increasing
- US finance R & D in bovine and human Haemoglobin based Oxygen Carriers (HbOC) as a blood substitute. Not clever (BSE)
- European Commission financed recombinant HbOC research project
- Eurobloodsubstitutes Project (www.eurobloodsubstitutes.com)
 - Very best brains in blood substitute research in Europe.
 - Succeeded to create new biosynthetic Haemoglobin, pegylation thereof
 - Surveyed the market needs.
 - At the start it was clear that 30 month of research is not sufficient for a prototype more R & D is necessary to take the project into the phase of commercialisation.
 - Unfortunately, under the current ruling the EU does not extend projects.
- Not completing projects with high probability of success is the ultimate form of wasting tax payers funds

Knowledge to be converted in value

- To bring knowledge into the commercial domain requires Intellectual Property Rights. Without patents no venture capital!
- Consortium agreement a toothless paper tiger
- Creating a joint patents owned by all contributors would force participants
 - To know state of art and commercial competition in a particular field
 - To reduce reinventing the wheel
 - To foster creation of useful novelty
 - To act as a collective minds and united team
 - To foster discipline
 - To convert data and information into value
 - To reduce work load on knowledge managers in Brussels
 - To shift the knowledge management task into the hands of patent examiners
 - To provide an incentive to scientists to carry research into the commercial domain.
 - To automatically disseminate knowledge to the interested part of the public
- Joint patents would be a fast track to create the basis for new pan European industries and job opportunities for knowledgeable people

Services for the public?

- Example 2 “Plasmatech”
- Developed most advanced new plasma sterilisation technology. Project partners formed Koldsteril AG to commercialise new technology and to build a European based Plasmasterilisation industry.
- No sales before validation/certification
- Validation and certification requires venture capital.
- VC requires solid patent portfolio. EU owns plasma based patents. Licence available for €300 000 followed by royalty payment.
- No validation standards or suitable specialists to assess and certify the novel technologies. No grant system to validating European created technology.
- European Venture Capital Scene a drama and comedy.
- Salaried employees with no experience in building their own business are in charge of technology transfer and venture capital organisations. We were told that European financiers do not support anything that originated from EU research projects

We must improve the system to win the race!

1. Research proposals to include R & D and business development strategies that point to potential beneficiaries, benefits and requirements for project commercialization. The earlier we think about factors of success the higher the chance of achieving success.
2. Radical new ideas are most important to win the technology race but also the speed and consequence with which they are converted into useful products and applications.
3. Project duration has to be kept short and less bureaucratic.
4. Disseminating scientific data and information into cyberspace is wasting tax payers investment.
5. IPR output is the yardstick for quality. Contributors and not administrators decide over ownership of IPR.
6. To increase scientific data output will lead to a decline in quality of content. Indeed 90 to 95% of published data is not reproducible. High economic costs
7. Huge differences in perspectives between private and public sector researchers . The winners are those that satisfy the needs of the ultimate beneficiaries faster than the competitors..

We must improve the system to win the race!

8. EU to show that it is serious about achieving the Lisbon decrees by supporting successful projects with all available resources .
9. The consortium agreement has to be simplified. Joint ownership is the key to creation of long lasting teams.
10. Divergent research to be combined with convergent research to create a focus and speed to the market .
11. Not all SMEs but many are ideal partners to convert public research results into sustainable technology enterprises.
12. Product life cycles are getting shorter and technology niches narrower. Researching SMEs are forced to build stabile vertical network organisations. (Keiretsu, Zaibatsu). It would be a smart move for the EU to foster and to enable formation of vertically integrated network organisations.

Thank you for your interest

