
Innovation Management 2030: Integrating social aspects in Technology- and Innovation Management

Hans-Jörg Bullinger
Fraunhofer-Gesellschaft
www.fraunhofer.de



© Fraunhofer

 Fraunhofer

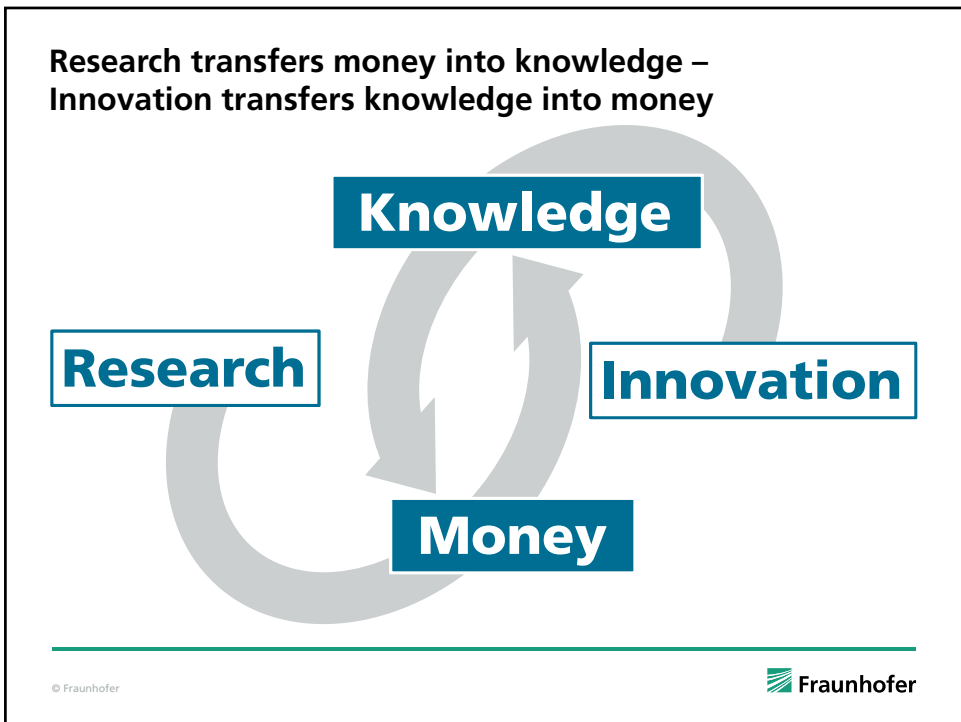
It is by no means certain
that things will become better
when they change,
but in order to become better,
they have to change.



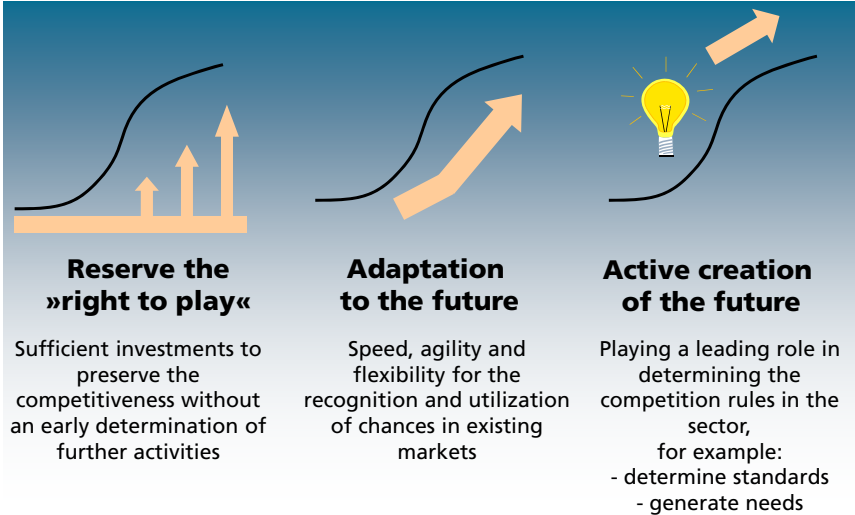
Georg Christoph Lichtenberg
German physicist and author
(1742-1799)

© Fraunhofer

 Fraunhofer



Three strategic approaches of innovation



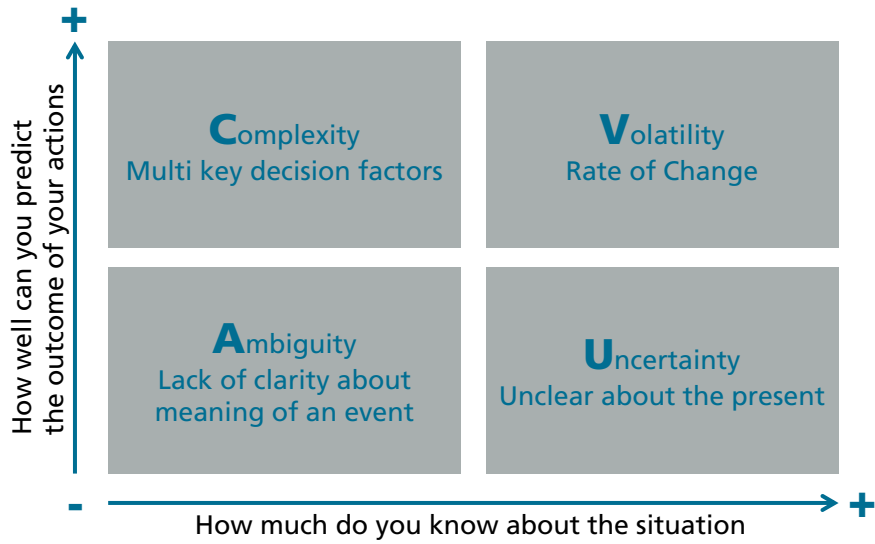
Source: Courtney/ Kirkland/ Viguerie modified by Fraunhofer IAO

© Fraunhofer

Fraunhofer



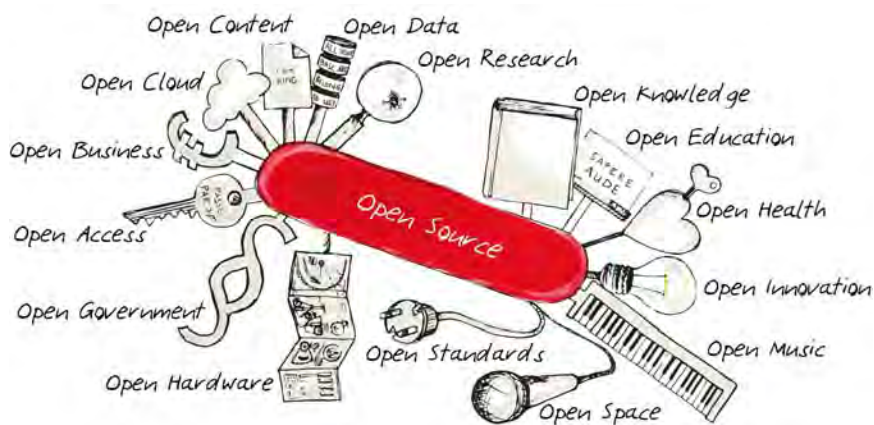
VUCA - the disruptive battlefield of modern-day business



© Fraunhofer

Fraunhofer

Assumption 1:
In the knowledge society of the future any information will be freely available.

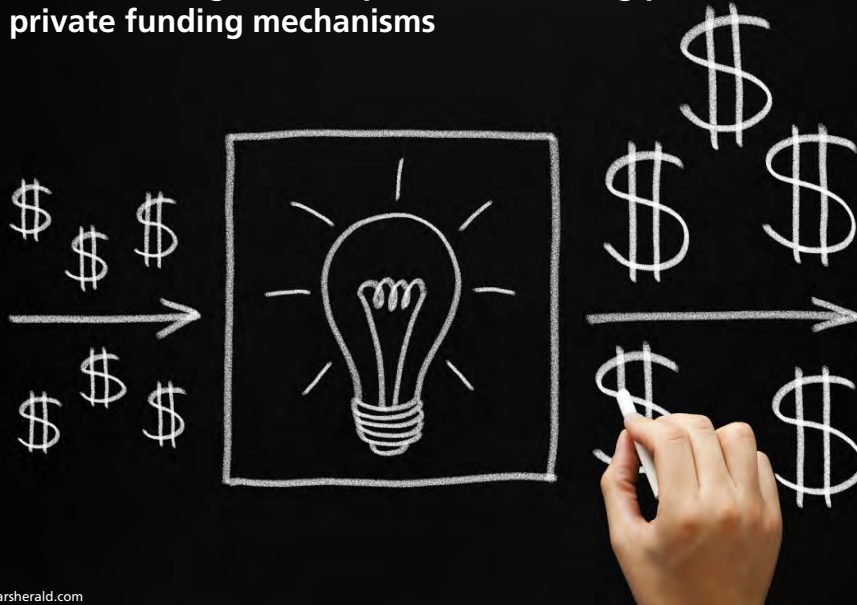


© wikipedia.org

© Fraunhofer

Fraunhofer

**Assumption 2:
Crowdfunding will compete with existing public and private funding mechanisms**



© parsherd.com

**Assumption 3:
People with the motivation of gaining knowledge will be able to contribute to research and development.**



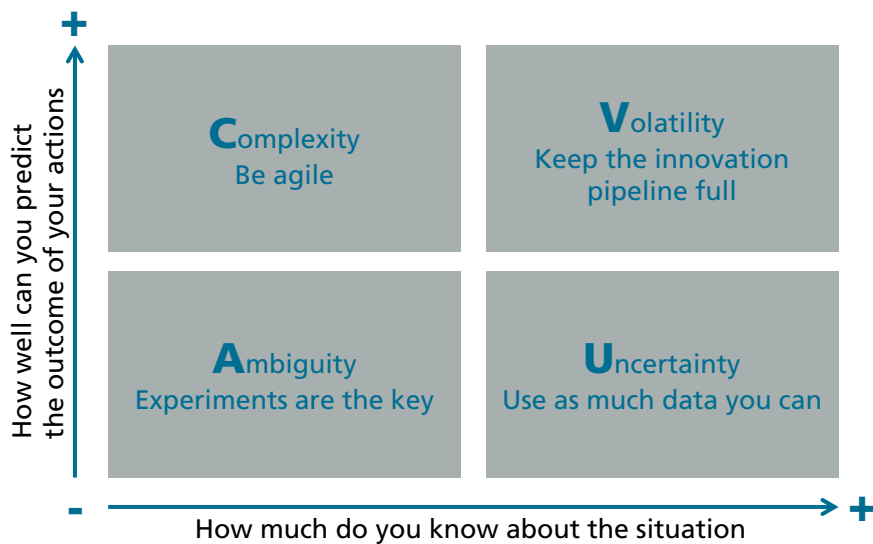
© t-online.de

- They can share their results on the Internet
- They are able to build their own networks of experts.
- Science will further democratized and the "ivory tower of research" might collapse and turns into an arena of knowledge generation.
- The still established paths of "technology push" through organized research will be infiltrated in a "do it yourself" society, if not spilled.

© Fraunhofer

 **Fraunhofer**

VUCA – strategic options for innovation management



© Fraunhofer

Fraunhofer

Innovation Management 2030 ...

4 Challenges to discuss

1

Ambidexterity as a major success factor



2

Technologies are reinterpreted & Interdisciplinarity is relived



3

The smart creatives make it easy & claim a new kind of executives



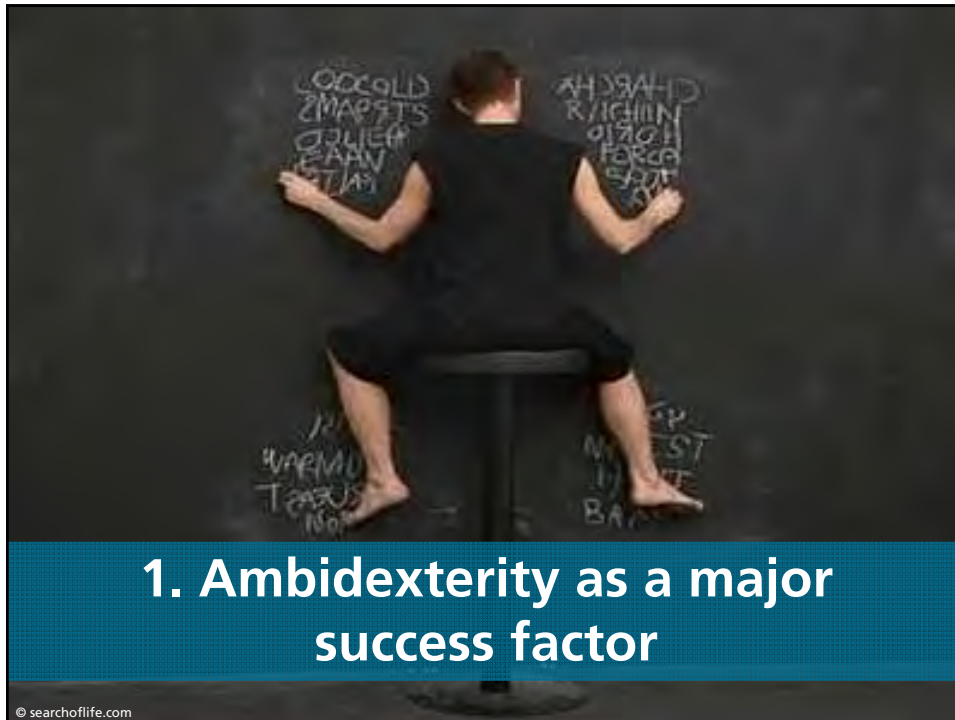
4

Invention Manager 1.0



© Fraunhofer

Fraunhofer



1. Ambidexterity as a major success factor

Challenge 1: Ambidexterity as a major success factor Ambidextrous organizational architectures

The overcoming of dysfunctions and tensions by instruments and organizational architectures enabling exploitative and explorative innovation simultaneously.

- Currently one of the "hottest" issues discussed in Innovation- and Technology-Management
- Competitive advantages are to be created through the simultaneous pursuit of
 - exploitative (incremental improvements) processes and
 - explorative processes (radical Innovation)
- Organizational challenge:
Simultaneous implementation of stability and change in the company

How to design organizational forms / instruments that support exploitative and parallel explorative activities?



Challenge 2: Technologies are reinterpreted & Interdisciplinarity is relived
Open Innovation and Design Thinking are the keys



Sources: ShapingFuture 2016, Fraunhofer IAO

© Fraunhofer



Challenge 2: Technologies are reinterpreted & Interdisciplinarity is relived

8 Findings

1. Go interdisciplinary!
2. Enabling is key! Co-designing future technologies requires deliberate process design
3. Involve designers into process design
4. Utilise diversity to address public preferences
5. Prototypes materialize ideas that can be difficult to verbalize
6. Document intermediate steps and results
7. Develop new methods for evaluating and clustering collected data
8. Professional transformation refines results

Source: ShapingFuture 2016, Fraunhofer IAO

Fraunhofer



3. The smart creatives make it easy & claim a new kind of executives

© youngmarketing.co

Challenge 3: The smart creatives make it easy & claim a new kind of executives

Learning to decide

Fast Learning in dynamic contexts enables fast decisions

- Creative Labs, Co-Working Spaces and Centers sprouting up everywhere
- Design Thinking **as a culture (!)** for interdisciplinary, creative problem solving is recognized and is gaining importance
- Effectiveness through discourse and consensus on a defined problem

But:

- Is the world as it is described to us here?
- Dealing with the NEW can not be described as a problem!
- An organization must endure uncertainty

People who want the NEW must be able to learn, want and can.

© Fraunhofer

 Fraunhofer

Challenge 3: The smart creatives make it easy & claim a new kind of executives

Experiment instead of Structure

Formal Innovation Strategies and – organisations are replaced by the enabling of fast Experiments

- Invention is an expedition
 - Search for problems whose solution is worthwhile
 - Rapid prototyping and pilot tests
- Everything is there to experiment quickly:
 - Crowdfunding platforms deliver a fast "Feedback" for an experiment
 - Open Innovation Platforms bring ideas to the company or companies to ideas
 - Open standards, open source hardware and software are the drivers!

Learning by doing!

© Fraunhofer

 Fraunhofer



Challenge 4: Invention Manager 1.0

Esteem rather than hierarchy

The new Invention Manager identifies technological opportunities and potential needs in the field. He brings people together and enable them to discover and implement the New.

- An Invention Manager ...
 - ... develops an organization that quickly learns from their mistakes in an efficient and consistent way,
 - ... asks the right questions (questioning the core business)
 - ... beats a path into the unknown
 - ... gives time, instruments and tools and sets important limits
 - ... is an advocate for the New

The Invention Manager 3.0 will not be "process owner", but more than ever Coach, Changemaker, Scout, Rule-Breaker and "Crosslinker"

... integrating social aspects

1

Culture & Co-Creation



2

Co-Creation



3

Culture & Co-Creation



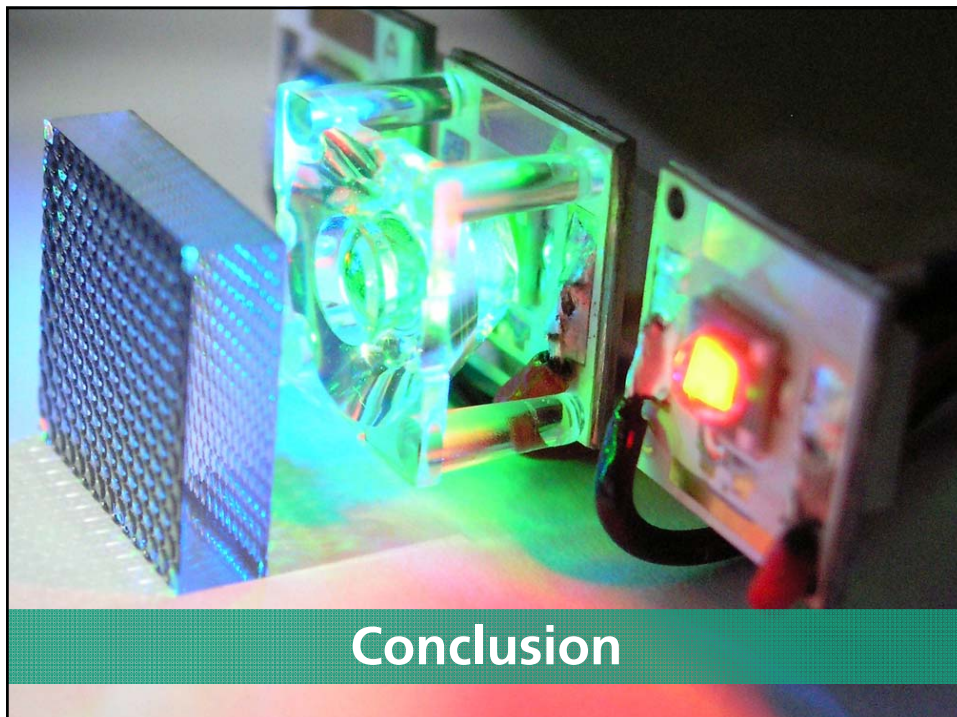
4

Social Worker of Innovation
Management



© Fraunhofer

Fraunhofer



What successful innovators have in common

1 A clear strategy



2 The best team available and best working conditions



3 Specific Processes and Methods



4 A determination to succeed



5 A constant control loop of results



© Fraunhofer

 Fraunhofer

Fraunhofer's secret:



**10 good ideas a day
keep your competitors away**

© Fraunhofer

 Fraunhofer



Fraunhofer

Working for the future.

© Fraunhofer

 Fraunhofer