

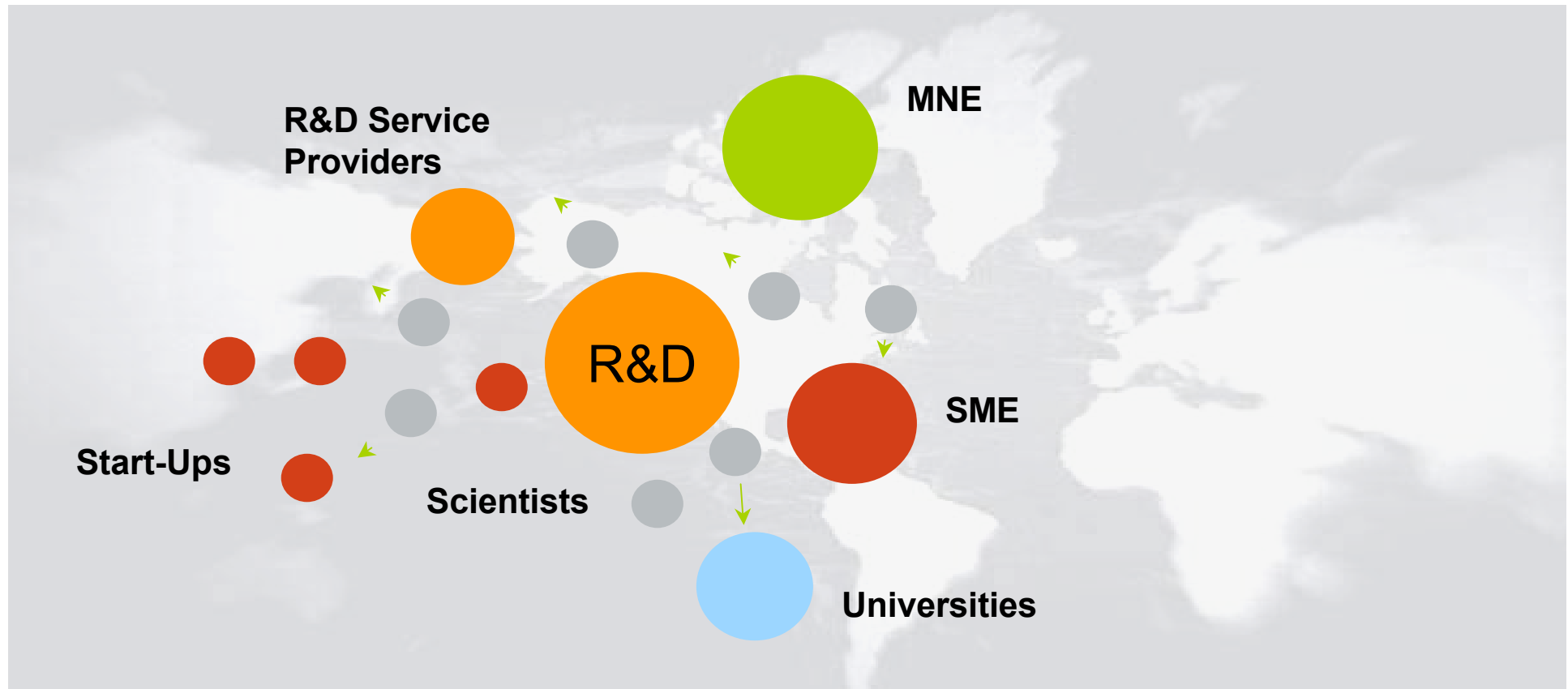


**The Future of Corporate Innovation**

**Will there be an Outsourcing Endgame?**

Summit of the Future 2005 | Andreas Neef

## Background: Rising Spread of Scientific Knowledge

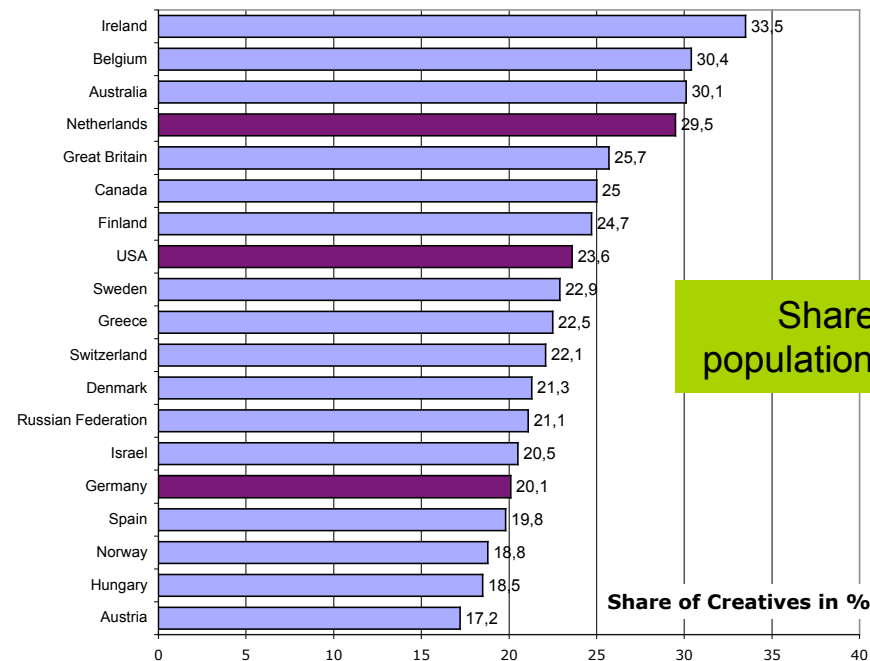


In the 21th century knowledge is highly mobile: The end of knowledge monopolies!

## Background: Creativity is a scare resource

Where will the  
people be found for  
innovation  
leadership  
in the future?

In your  
company?  
Your country?



Share of creatives of the  
populations of selected countries.

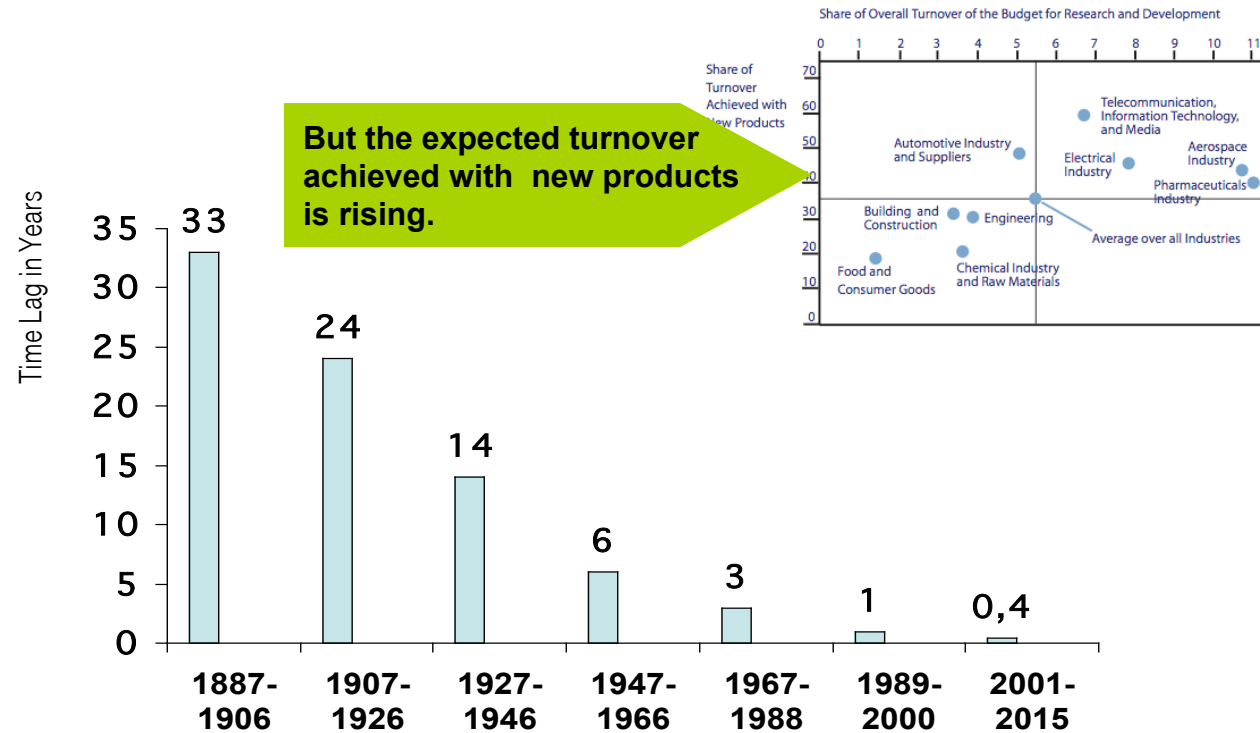
Companies will increasingly use global creativity resources!

## Background:

### Competitive Edge from Innovations Vanishes

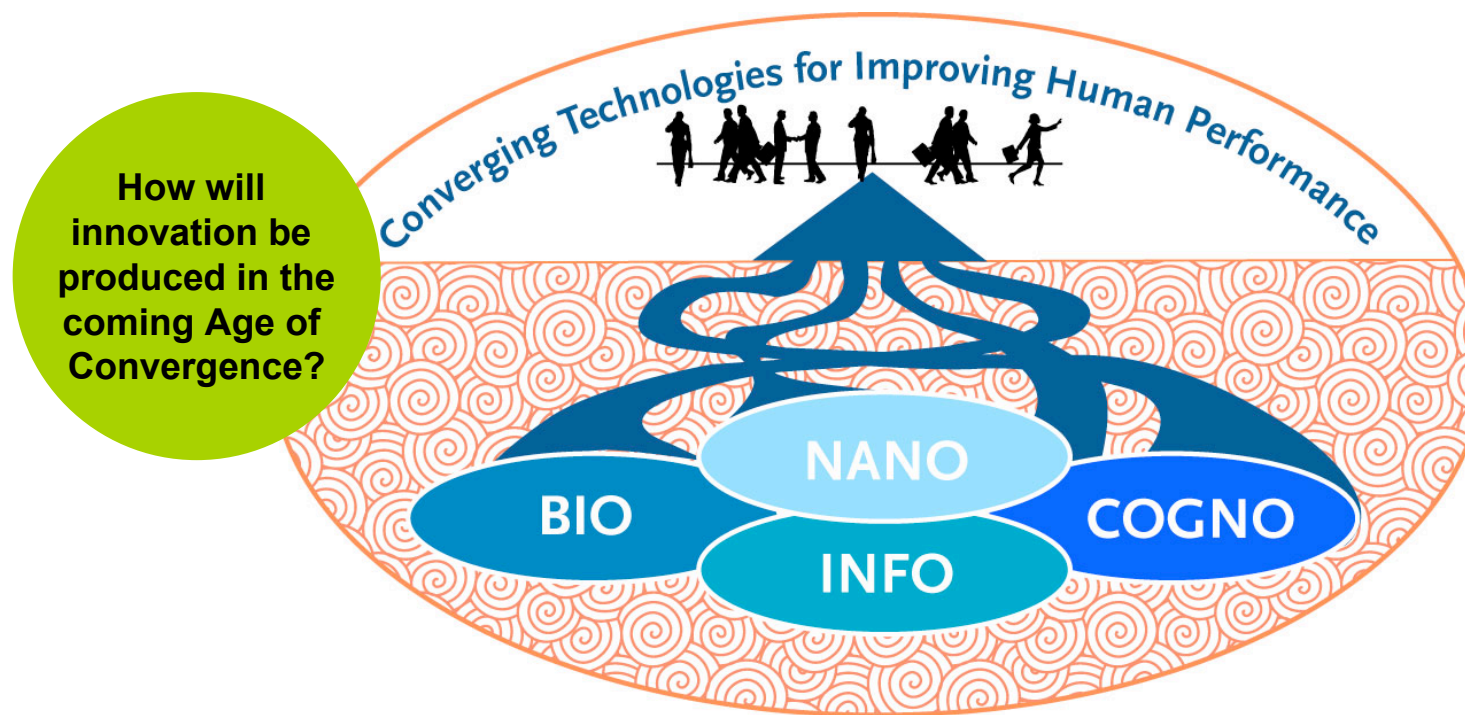
How can the speed, productivity, and efficiency of corporate R&D be raised?

Only by internal re-organization ?



Companies are forced to produce a constant stream of innovations!

**Background:**  
**Technological Convergence (NBIC)**



Technological Convergence, esp. NBIC will shape new knowledge landscapes.

## Background:

### Mature Consumers - New Demands on Technology

How can  
technology be  
successfully brought  
to the Mature  
Markets of the  
future?

Technology-  
Push?

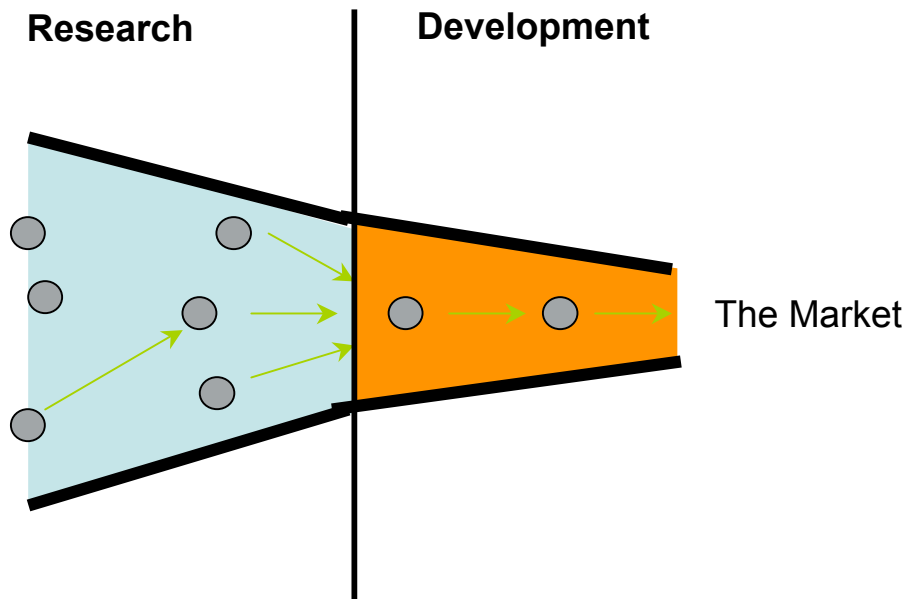


Simple Technology-Push strategies don't fit a postmaterialistic world.

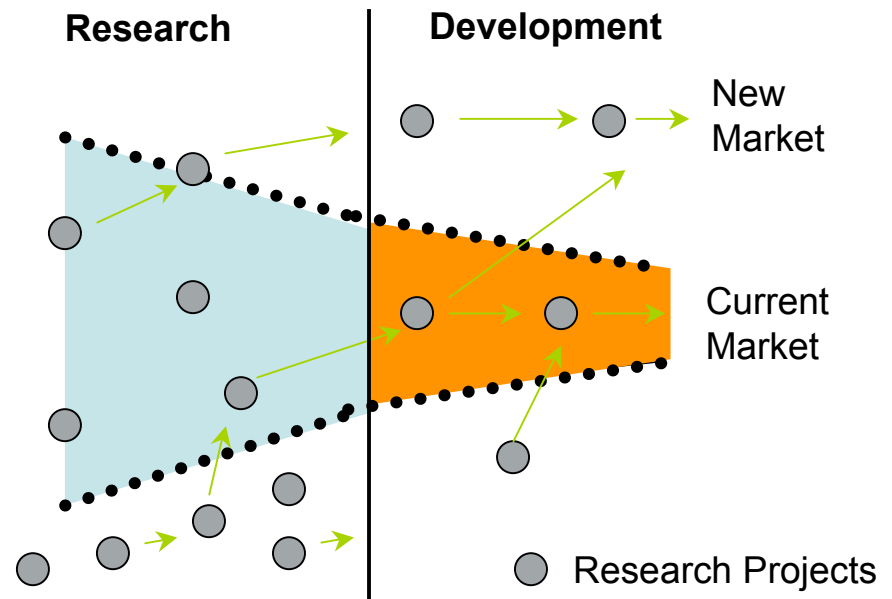
## Background:

# From Closed Innovation to Open Innovation

### The Closed Innovation Paradigm for Managing Industrial R&D



### The Open Innovation Paradigm for Managing Industrial R&D



Centralized R&D is replaced by open innovation structures.

## Paradigm Shift: From Closed Innovation to Open Innovation

### Closed Innovation Principles

The smartest people in our field work for us.

To profit from R&D, we must discover it, develop it, and ship it ourselves.

If we discover it ourselves, we will get it to the market first.

The company that gets an innovation to market first will win.

If we create the most and the best ideas in the industry, we will win.

We should control our IP, so that our competitors don't profit from our ideas.



### Open Innovation Principles

Not all the smartest people work for us. **We need to work with smart people both inside and outside our company.**

**External R&D can create significant value,** internal R&D is needed to claim some portion of that value

**We don't have to originate the research to profit from it.**

Building a **better business model** is better than getting to market first.

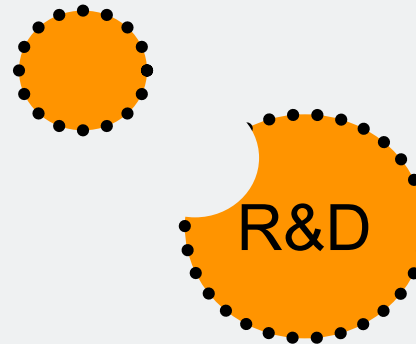
If we **make the best of internal and external ideas**, we will win.

**We should profit from others' use of our IP,** and we should buy others' IP whenever it advances our own business model.

Open Innovation Systems need Open Innovation Cultures: Are you prepared ?

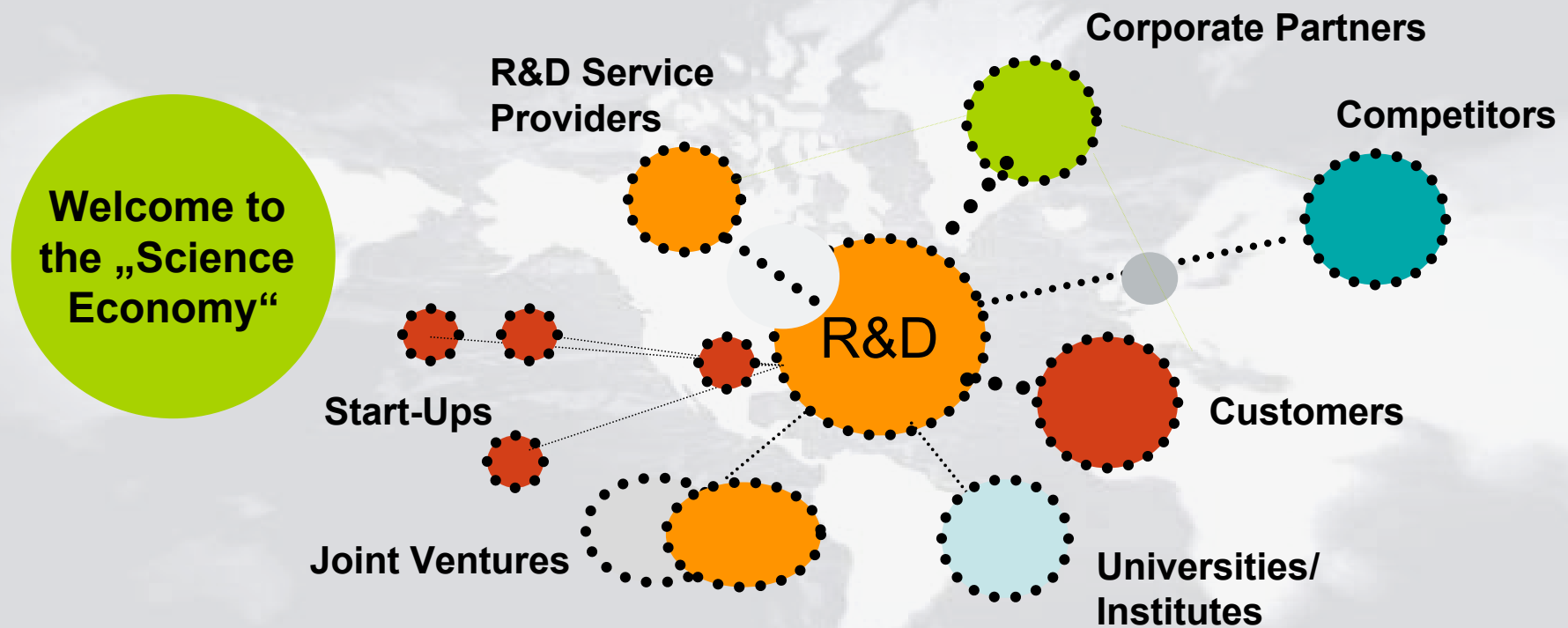
**Outlook:**  
**From Outsourcing R&D ...**

R&D Service  
Providers



R&D outsourcing and offshoring are powerful and risky – and it's just the beginning!

## Outlook: ... to a Global Innovation Grid ...



The Grid Computing Metaphor: An ambitious and exciting global effort to develop an environment in which individual users can access computers, databases and experimental facilities simply and transparently, without having to consider where those facilities are located.

**Vision of the Innovation Grid:** Simple, transparent, instant and worldwide access to globally distributed R&D resources and services.

## Outlook:

# What Will Your Core Competence Be, If Not Invention?

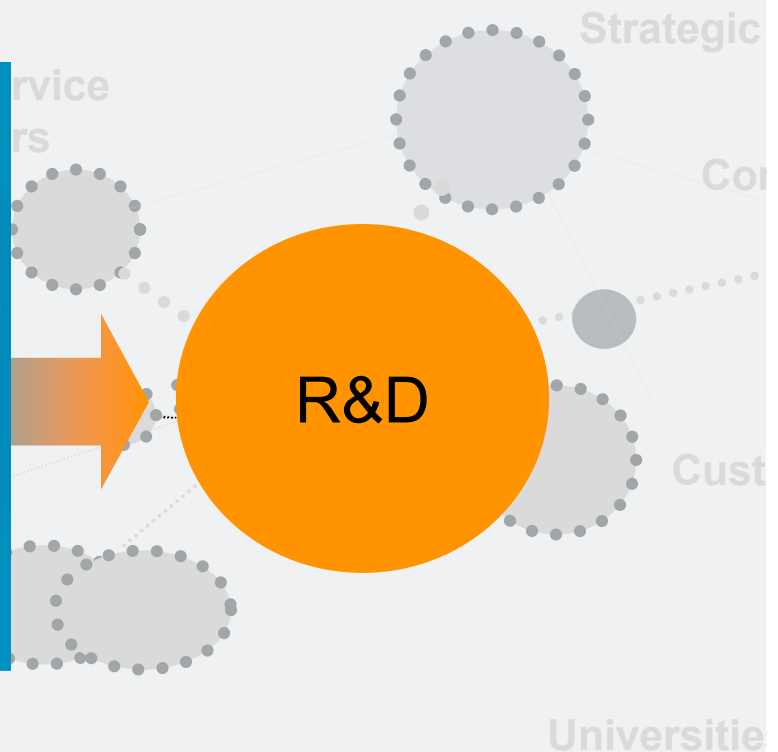
Strategic Visions/Goals

Changing Environments/Demands

Scenarios/ Future Applications

New Market Opportunities

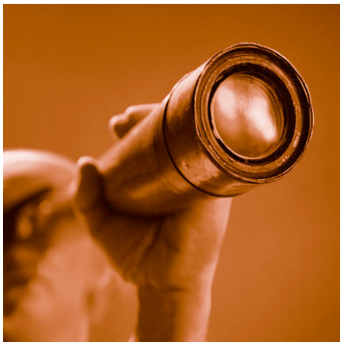
Proactive Management of IP



Corporate Foresight will become a core competence of innovation leaders!

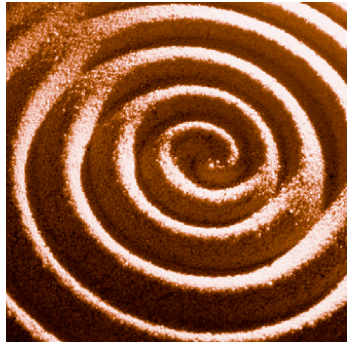
## Lessons from the Corporate Foresight Approach : The 5 Innovation Parameters of the Future

### Anticipation



Anticipate the changes in your environment and your customer's needs at an early stage!

### Context



Envision future contexts, don't just invent technologies!

### Quality



Develop and control standards for the quality of your innovation output!

### Interfaces



Manage the complexity of interfaces within the innovation grid!

### Timing



Synchronize processes and optimize your time-to-market!

The Future Framework for Managing Innovations.

## Summary

- **Creativity** will become the scarce resource of the global economy
- We will see a **paradigm shift to open innovation structures**
- **Outsourcing R&D** is interesting – but it's only the beginning
- In 2020 R&D will operate within a "**global innovation grid**"
- **Corporate Foresight** will become a Core Competence
- Be aware of the **5 strategic parameters of innovation**

Not an endgame... a new game has just begun!

## Discussion

1. What is your personal R&D outsourcing experience ? **Do you believe in the „Global Innovation Grid“?** How do we get there?
2. What will open innovation mean for your industry? **Which challenges will you have to face?** How to cultivate open innovation in your company?
3. Corporate Foresight and R&D: **The future twins for success in the technology markets of the next decades?**

Thank you !