Emotional R&D

Complementing Science and Technology

Executive Summary:

When looking for ways to improve the performance of R&D departments, I stumbled over an interesting statistic from a German researcher: The majority of internal barriers for Innovation were in fact communication-related.

This article talks about the need to understand not just the scientific and technological side of Research and Development but also the cognitive and emotional.

The Facts

Heinz-Kurt Wahren presented in his publication 'Success Factor Innovation' (my translation) results of a very interesting study.

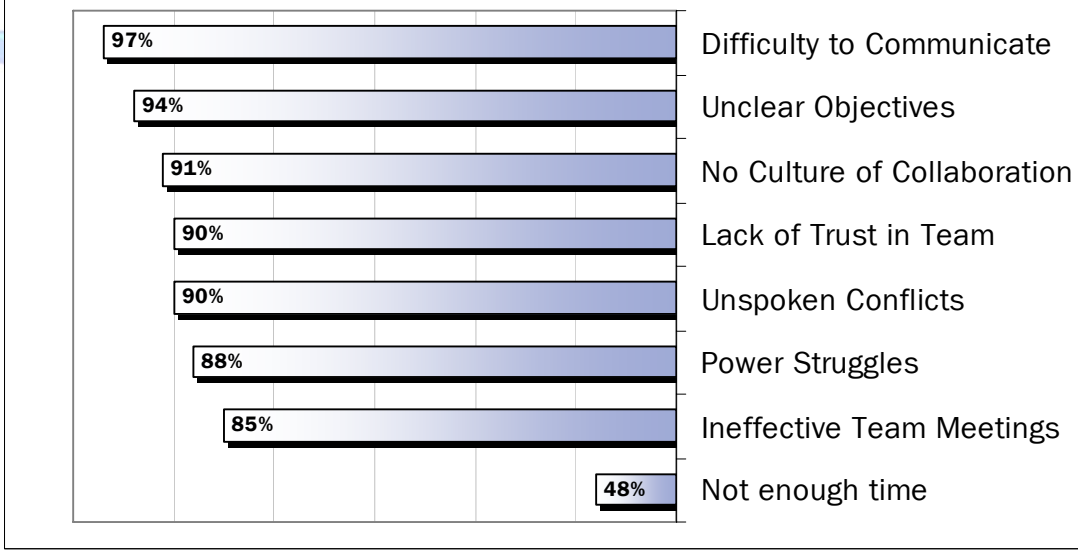
When asked about the internal barriers for Innovation in their company, the participants mentioned communication-related reasons as the most important.

Here are the most destructive answers:

- **Difficulty to Communicate**
  Receiving, processing and sending of information
- **Unclear Objectives**
  Avoiding misunderstandings
- **Lack of Trust**
  Relationship building

This article develops a framework in which to operate to deal with these barriers from a new angle.

Internal Barriers for Innovation From Wahren 'Success Factor Innovation'



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A Different Angle

Communication issues within teams are not new. Failure to properly present, take in, process and respond to information is the result of lack of awareness of the ways people "do communication".

A barrier is of ideas, not of things.
Mark Caine

MBTI

A tool I found most useful in these questions is the Myers-Briggs Type Indicator (MBTI®). It attempts to structure a person's preferences along 4 dimensions ('functions'):

- **Energy:** Extroversion & Introversion
- **Perceiving:** Intuitive & Sensing
- **Judging:** Thinking & Feeling
- **Attitudes:** Judging & Perceiving

From these 4 dimensions, 16 types emerge as a combination. The theory is that as we are born, we have a preference for a particular orientation in each of the four 'functions'. This basic preference matures over time as we 'tap into the other functions': we learn to employ those functions.

Here is the rub: the types have very distinct ways of communication (sometimes opposed) and very different statistical distributions in western societies (more about this later). It is these two insights combined that help understand and avoid some of the destructive communication issues in Innovation Management.

Innovation is different

How come an organization can build millions of products with near-perfect quality and precision but yet cannot deal effectively with new product design? Is Communication not critical in both cases?

The answer lies in the context.

Repetitive tasks (like making the same product over and over again) have been 'standardized'. That is short for 'squeezing ambiguity out'. Conversely, the hallmark of an innovation project is its lack of standardization, its high degree of freedom and ambiguity.

Know Thyself
Socrates

Teams that know how to live in a standardized environment will have to mentally adjust to an innovation environment. This adjustment has to happen at the gut level. Trying to make oneself feel better by standardizing an innovation project is at best a futile effort, at worst the hammer strokes chipping away at the tombstone.

The Three Barriers

Communication fails when the parties trying to exchange information employ a different, sometimes opposing reference system.

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Barrier 1: Difficulties to Communicate

This barrier lacks specificity, but can exemplify several dysfunctional behaviors.

The **Energy Dimension** causes some very visible and easy to remedy issues. An extrovert will talk his way through his thinking, while an introvert will think before she talks. As a result, extroverts are making statements that introverts misunderstand as commitments, while the extrovert is simply trying to find his position. Introverts, on the other hand, come across as uninterested or detached to extroverts that miss the free flow of thoughts.

The **Perceiving Dimension** can cause harm as well. Sensing types will come across to the intuitive types as 'lost in the detail' or sandbagging since they need concrete facts to make up their mind. The intuitive will appear as 'detached' or 'being in cloud cuckoo land' with his instinct to think in pictures and jump way ahead through the power of his intuition. The more step-by-step minded sensing type finds this extremely difficult to follow and turns defensive, disinterested or hostile.

Finally, the **Attitude Dimension** can cause communication failure as well. Here, the 'Perceiver's' desire to leave things open and flexible will exasperate the 'Judging Type' that needs closure to move on. Specifically in innovation projects, the need to decide can act as a barrier to the progress of the project, since that impedes nimbleness.

Barrier 2: Unclear Objectives

This barrier is the manifestation of Sensing versus Intuiting. While a Sensing Type requires detailed instructions, the Intuitive feels buried alive under those oppressive bonds. A Sensing Type receiving objectives from an Intuitive will feel without clear guidance, resulting in the strong need for more details and more specificity to the point where the Intuitive will think 'I could have done this objective myself, with the management this person needed'.

Barrier 3: Lack of Trust

Trust is created when one understands the inner motives of another person and can predict their future behaviors. **In an ambiguous context the established mental models fail.**

In this situation, a **Sensing Type** is looking for specific facts, for a step-by-step guide on what he is to do. If the Intuitive Leader does not provide that, trust in the Intuitive erodes quickly and in a sustained way.

For the **Intuitive** to have a Sensing Leader is equally taxing. Preferring his freedom, the Intuitive will consider the detailed instructions and specific task lists of the Sensing Type as a lack of confidence in her abilities. As a result, her trust in the Sensing Leader begins to wane.

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What to do

These examples are but a fraction of the true wealth of insights that can be gained from understanding how people take on, process and communicate information. The challenge to the Innovation Manager is to understand these different approaches and cater to them appropriately:

- **Communication Out**
  Understand that the level of detail needs to be different for different types. Offer a solid overview with graphics that references back to deep content about specific information
- **Communication In**
  Understand that Extroverts will convey participation differently than introverts. Understand that Sensing Types will relate a lot of detailed information. Understand that the Intuitive is going to speak in models and pictures rather than specific data points.
- **Processing**
  Tap into all functions to help you understand others. The SNTF approach is very helpful:
  1. Sensing: **List the Facts**
  2. Intuiting: **The Big Picture**
  3. Thinking: **Devise a Strategy**
  4. Feeling: **Bring it to the Team**

And as always, **have a diverse team to have access to all these functions. Otherwise, you will end up 'blind' on one eye.**

Resources

Myers Briggs Type Indicator:

http://en.wikipedia.org/wiki/MBTI

http://www.MBTI.com

Wahren 2003:

German title: „Erfolgsfaktor Innovation. Ideen systematisch generieren, bewerten und umsetzen", H-K Wahren, ISBN 3540030824

About Jay Heuer

Dr. Heuer is co-founder and CEO of SarJay GmbH, the Germany-based consulting outfit focused on **Innovation Management**, **Finance Management**, and **Talent Development**.

Jay has spoken on numerous occasions at conference and in company events about Innovation Management and Talent Development.

Dr. Heuer has been quoted in several newspaper articles about product development and Innovation Management, last in the Boston Globe.

His career spans the creation of a German software development company and a successful, US-based decade in IT and Research & Development for one of the largest companies in the world.

He can be reached through the contact form at http://www.sarjay.com (no email because he really, really hates spam).

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