Innovation and Resistance to It

PIAP = Psychological Innovation Awareness Process

Speech delivered at the
7th Building Congress
in Zurich
13th November 2008

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Innovations

Everyone talks about the successful innovations

Dyson
New hand dryer

Mettler-Toledo
Quantos new type of metering system

Nestle
Nespresso

Apple
IPod

Forbo Siegling
Energy-saving conveyor belts
Innovations

Others are forgotten

- Revox
- IBM OS2
- Adats
- Sulzer Hexis fuel cells
- SchindlerMobil
- Dyson Washing machine
- GM
Innovation alarm!

Flops endanger your existence:

- Sulzer Hexis (fuel-cells)
- Bührle (Adats)
- CMC (a new kind of clamp system)

Defaulted innovation endangers your existence:

- Hasler
- Revox
- Osborn
- GM
“A business always undergoes risks with innovation. Without innovation, a business always goes under.”

Ferdinand Pièche
Definition of the concept of innovation

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An innovation is when the market shouts “Hooray!”
Innovations

Innovators

Thomas A. Edison

James Dyson

Arthur Schmed

Eric Favre
Innovation hazards

Innovations are always opposed in the beginning

- Nespresso (Nestle)
- RISC processor (at IBM)
- Alveo (sound-insulating foam)
- Swiss Post Office banned fax machines
- Edison opposed alternating current
- Florence banned the use of Arabic numbers in 1299

We are happy to be associated with the innovation afterwards but never with the boat-rocking innovator.
Resistance

It's not true that we humans are creatures of habit. We are habit fanatics!

Resistance is a natural survival response.
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Conclusion:
- Major innovations always have to be imposed against the defense mechanisms.
- Ideas that do not engender resistance are either not new or not being taken seriously.
Problem-solving

Our problem-creating and solving organ

Yes
Yes
Yes
Yes
Yes
No
No
Yes
No
Yes
Yes
Yes
Yes

Yes!
Problem-solving

My perception

Experience, knowledge and values

Needs
- conscious
- unconscious

My idea of “how it is”

My idea of “how it should be”

My perception filter

Environment
The difference between my perception and my values produces emotions. The emotions influence my perception.
Problem-solving

My problem is the difference between my perception and my values.
My problem is the difference between my perception and my values.

Solving my problem means reducing the difference to zero!
Defensive behavior

Psychological defense mechanisms are behavior patterns by which we unconsciously react to changes.

Defensive behavior helps us uphold our self-image
Defensive behavior

Bruno Umiker illustrated the suppression mechanisms at last year's Building Congress with the following diagram:

To uphold our self-image (self-projection and self-protection)
Defensive behavior

When what shouldn't be can't be:

Using psychological defense mechanisms, we attempt to uphold our self-image.

Defence successful

Self-image affirmed

Defence unsuccessful

Frustration

Escape in illness, drugs, consumerism, etc.

Learning effect
Self-image revised
Defensive behavior

When what can't be is reality:

Self-image under threat

Defensive behaviour

Defence successful

Self-image affirmed

Learning effect
Self-image revised

Defence unsuccessful

Frustration

Escape in illness, drugs, consumerism, etc.

Chance for Innovation!
Aversion against a losses

The loss of 100 dollars annoys us much more than making a profit of the same amount pleases us.

After Kaneman und Tversky (1979)

“We Swiss prefer a certain defeat to an uncertain victory.”
Jaques Pilet
If the incentive systems are aiming in the wrong direction, no amount of verbal persuasion will help.
Hidden benefits

Who benefits from the continuing existence of the problem? Who is afraid of the next task after the problem is solved?

Suggested solutions
Offer of help
Problem solving methods

Resistance/Defensive behaviour

Fear of next task after problem is solved
Fear of losses

Hidden benefits from existence of unsolved problem
Desire for innovation

Desire for change is based on the wish for:

- Greater quality of life
- Greater efficiency
- More power
- Reinforcement of power
- Security of existence

Resistance to change is based on:

- Habit and comfort
- Fear of losing power
- Security of existence
- Conviction that things are fine as they are

The more strongly the adversaries identify with their ideas, the tougher is the battle between the reformers and the status-quo preservers and they all want to be proved right.
Desire for innovation

Desire for change is based on the wish for:

- Greater quality of life
- Greater efficiency
- More power
- Reinforcement of power
- Security of existence
- Appreciation

Resistance to change is based on:

- Habit and comfort
- Fear of losing power
- Security of existence
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- -
- -

The more strongly the adversaries identify with their ideas, the tougher is the battle between the reformers and the status-quo preservers and they all want to be proved right.
The winning method for innovation

PIAP = Psychological Innovation Awareness Process*

With PIAP, it is possible to get the people involved to invest more energy in problem-solving than in defensive behavior.

Step 1: Awareness-raising process
Step 2: Strategy process
Step 3: Innovation target-definition process
Step 4: Development process

* According to Umiker and Schweizer
Griesser Example

Griesser Electronic develops and produces the control systems for Griesser AG

Initial situation:

- A range of 8 different control centers
- High expenditure on product management
- Inadequate functionality
- Unsuitable design for living room applications
- Competitors active in the market
Step 1: Awareness-raising process

- The CEO raised the issue of the need for a new product range.

- The potential losers from the project were also identified. Then possibilities were sought for involving those staff in the project in a way which would nevertheless benefit them.

- One employee was motivated to re-train in development methodology.

- That employee also produced market and technology development analyses.

- The ground to be made up appeared a serious threat.
Step 2: Strategy process

- In a strategy workshop, the management and staff developed ideas as to where the company wished to position itself in the next few years and how that was to be achieved.

- Opportunities and risks were discussed and the consequences for the workforce considered.

Step 3: Innovation target-definition process

- Once the direction in which they were aiming had been defined, the project manager was able to produce detailed specifications for the new product range.

- The detailed targets to be achieved were set out in a hierarchical targets structure and agreed with everyone involved again.

- Initial system concepts (draft concepts) which showed achievement of the targets to be realistic were drawn up.
Step 4: Development process

The actual development process using the classic project management and product development methods.

The project provided the opportunity to improve the level of project management and the development methods applied at the company.
Griesser Example

The result:  
- A range of control centers with two expandable modular units  
- Market success exceeded the most optimistic estimates

- Market success has permanently improved readiness to innovate
Reasons for success:

- In addition to the systematic approach, there were psychological reasons that motivated everyone involved to perform to the highest standards.

- Worries and reservations were taken seriously

- Staff were encouraged to re-train

- Challenging but achievable targets were set. The feeling that “we can do it” was never lost.

- Everyone involved was included in the target-definition process and so subsequently wanted to be able to prove that they were right.
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Yes we can!
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