

# A Study on Creativity Support in Ideation Software

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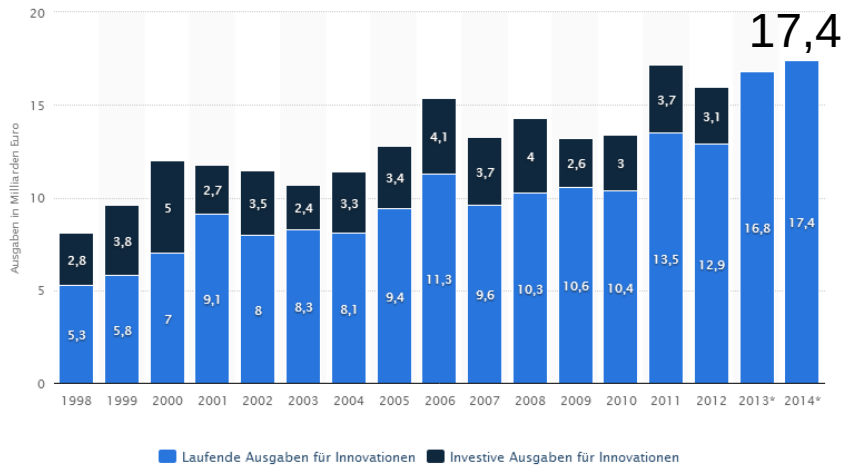
- Motivation
- Theoretical Analysis
- Practical Evaluation
- Evaluation Criteria
- Rating Mechanism
- Results & Overview
- Outlook

# Why bother with creativity?

## Creativity is...

- a key factor for innovation
- important for companies:

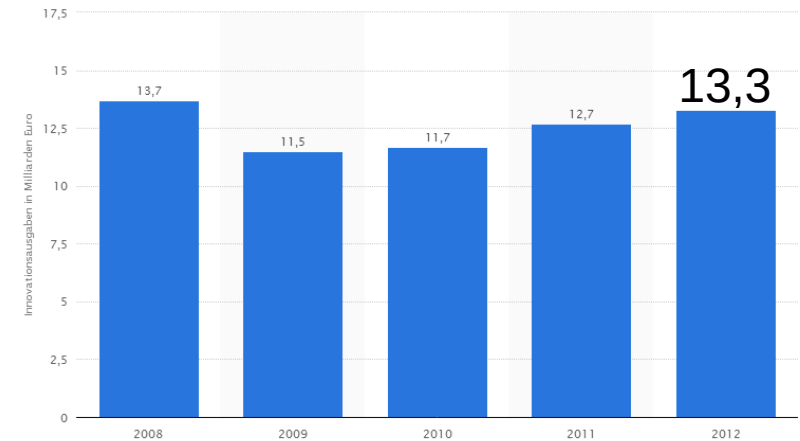
Innovationsausgaben in der Elektroindustrie in Deutschland in den Jahren 1998 bis 2014 (in Milliarden Euro)



Weitere Informationen:  
Deutschland; 16.100 Unternehmen\*\*; Unternehmen ab 5 Beschäftigte

Quelle:  
BMBF  
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Innovationsausgaben des deutschen Maschinenbaus in den Jahren 2008 bis 2012 (in Milliarden Euro)



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**Ideation tools are...**

... meant to promote creativity



**IdeacLOUDS**



**Do those tools offer support for distributed teams?**

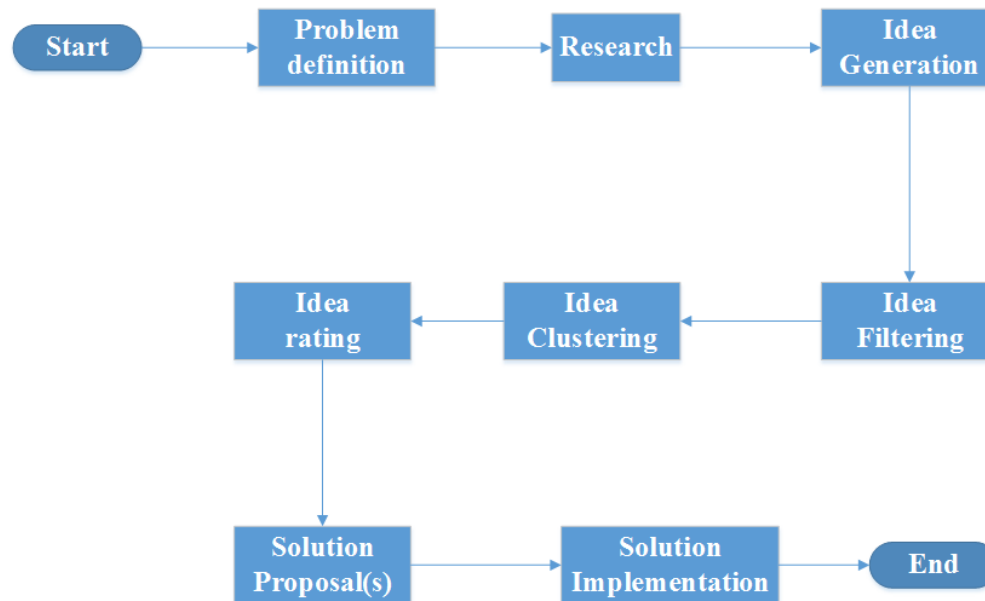
Literature covers:

- Psychology principles
- Brainstorming Tools and Team Work
- Ideation Tools

However close to no studies about  
available ideation tools

| Phase \ Model            | Wallas | Osborn & Parnes | Amabile | Basadur et al. | Vogt et al. |
|--------------------------|--------|-----------------|---------|----------------|-------------|
| Problem finding          |        | x               |         | x              |             |
| Fact finding             |        | x               |         | x              |             |
| Problem definition       |        | x               | x       | x              | x           |
| Preparation(Research)    | x      |                 | x       |                |             |
| Incubation               | x      |                 |         |                | x           |
| Response generation      | x      | x               | x       | x              | x           |
| Evaluation and selection | x      |                 | x       | x              | x           |
| Action planning          |        | x               | x       | x              |             |
| Acceptance               |        | x               |         | x              |             |
| Action                   |        |                 |         | x              |             |

## Creativity Support Process





## 7 Scenarios



## Mandatory Features

23 features

## Additional Features

12 non-ratable features

18 ratable features

**0** The tool does not offer any support for the feature

**1** No direct support from the tool, available workaround

**2** Indirect support from the tool through other features

**3** Indirect support from the tool, easily executable

**4** Full support from the tool

## Submit Your Idea



**Name your idea** (300 characters max.)

A catchy one that wraps up your idea

**Describe your idea**

Dive into the details

**Upload a picture**

📎 Upload a Local File

or

Web address of the picture (URL)

🌐 Upload from Web

or

No picture selected

Adobe Flash Player Settings

Camera and Microphone Access

[www.yutongo.com](http://www.yutongo.com) is requesting access to your camera and microphone. If you click Allow, you may be recorded.



Allow

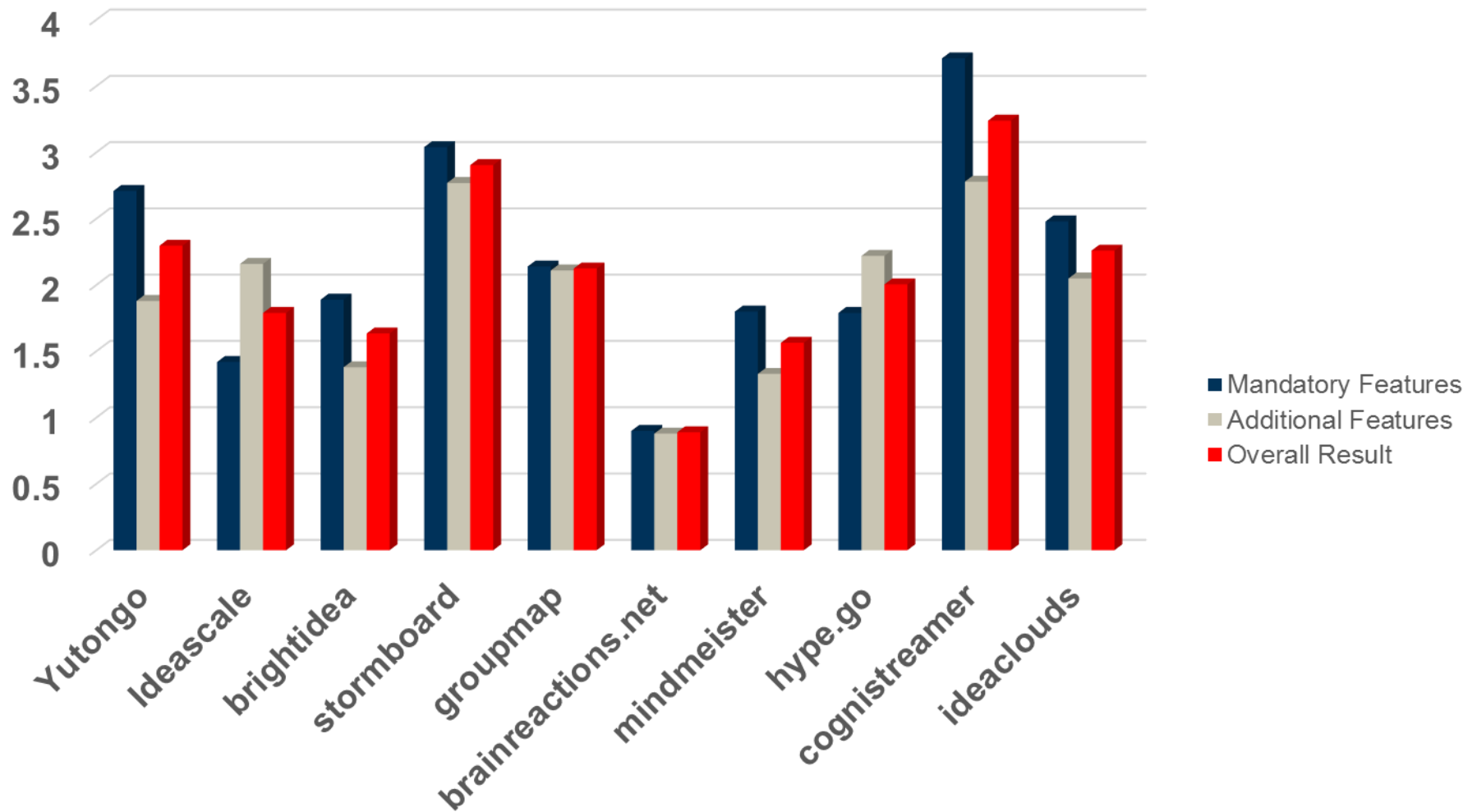
Deny

📷 Take a Camera Picture

Cancel

Submit idea

## Overall Results





- Good communication in-between team
- User friendly
- Customizable for own needs

- Most do not implement a creativity technique
- New market, many promises, few actual solutions

- Continue evaluation of the tools presented in the Forrester Report (Gliedman et. al, 2013)
- Empirical study to see the impact of ideation tool based vs. non tool based creativity sessions
- Critical analysis of the used creative process in comparison to real life creative sessions

Thank you for your attention

Any questions?

<http://de.statista.com.eaccess.ub.tum.de/statistik/daten/studie/154988/umfrage/innovationsaufwendungen-von-banken>

<http://de.statista.com.eaccess.ub.tum.de/statistik/daten/studie/157563/umfrage/ausgaben-fuer-innovationen-im-maschinen--und-anlagenbau-in-deutschland>

Chip Gliedman, Peter Burris, Nancy Wang (2013): The Forrester Wave: Innovation Management Tools

Parnes, Sidney J. (1992): Source Book for Creative Problem Solving: A Fifty Year Digest of Proven Innovation Process

Wallas, Graham (1926): The Art of Thought

Forster, Florian J. (2010): Computerunterstützung von kollaborativen Kreativitätsprozessen. Doctor's Thesis. Technische Universität München, München

Matthias Vogt, Katrin Bergener, Jörg Becker (2013): Comprehensive Support for Creativity-Intensive Processes. An Explanatory Information System Design Theory, pp. 227–242



- Which categories of ideation tools are available on the market?
- Which principles from psychology influenced the design of those tools?