

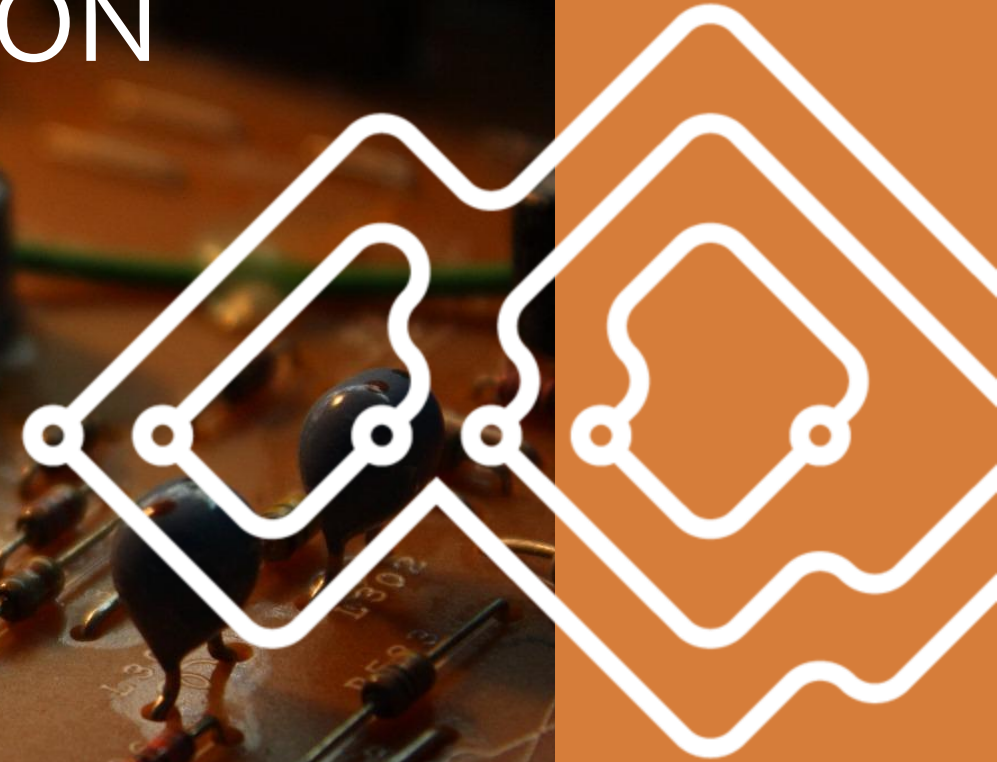
HOW TO IDENTIFY INNOVATION ACTIVITIES IN ONLINE COMMUNITIES

How innovative are peer communities?

*Approaches to the empirical assessment of peer
innovation*

Philipp Heß, Online Expert Workshop, 14 Jan 2022

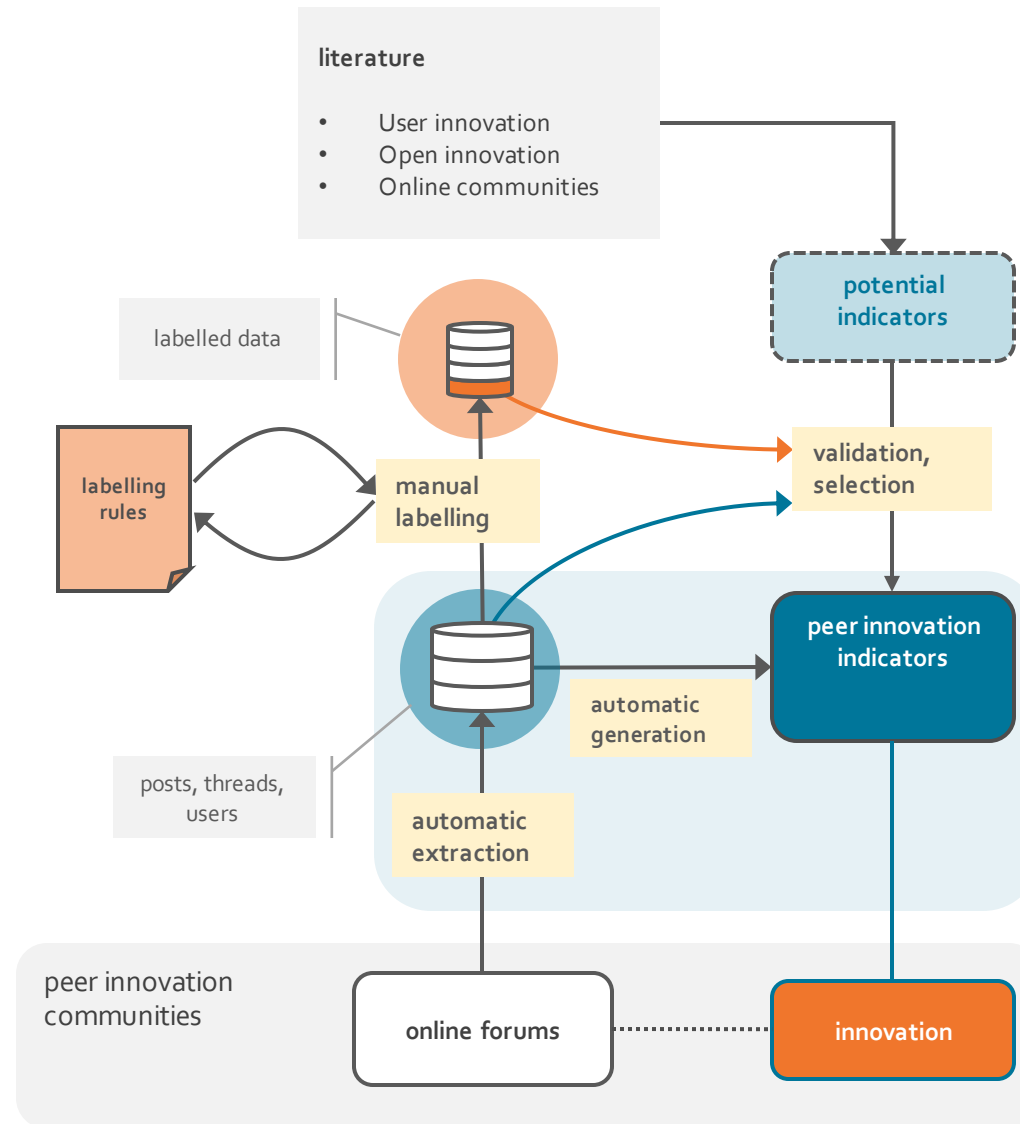
**P33R
!NNOVA710N**



Motivation & goals

- Household sector innovation & particularly peer innovation:
 - Under-recognized contribution to innovation & sustainability transitions
 - Also due to missing means of quantification (innovation indicators) & associated presence in public statistics
- Goal: Generating an analytical framework that includes the establishment of generalizable and automatable indicators for peer innovation
- **Need to operationalize the concept & create „ground truth“**

Framework

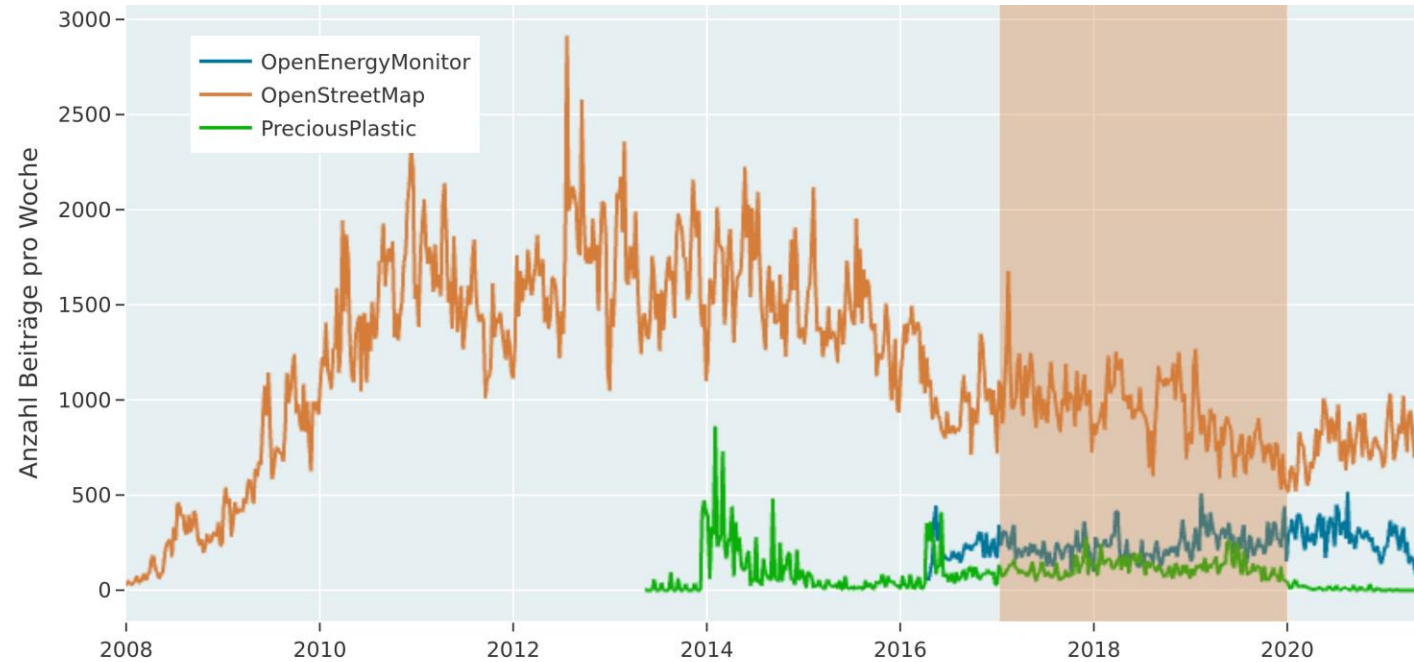


Labelling process & definition of rules

1. Read through threads (acquire more domain knowledge, netnographic analysis)
2. (re-) define rating scale (how much granularity available in data)
3. Concretise classification rules
4. Collect positive and negative examples that all raters agree on
5. Test by labelling a sample of randomly selected threads
6. Adjust rules / labelling scale if necessary
7. Compile “training documentation” / instructions for additional raters
8. Generate samples to be labelled [selection: random, exclude certain threads by default, concentrate on specific sub-forums]
9. Validate generated labels (inter-rater agreement, distribution of labels, etc.)

Data

- Web-scraped posts & author profiles from community forums
- Time period: 01/2017 – 12/2019
 - 20k posts, 12k users
- Focus on „technology-oriented“ sub-forums



Labels

Activities

- Focus on activities instead of outcome (no natural end state, observing the emergence of innovation, outcomes not necessarily observable within forums)
- Activities (inspired by innovation lifecycle of user innovation; Korbel & Grosse, 2020; Gambardella et al., 2016): **Presentation of idea, Evaluation, Implementation Modification Improvement**

Plus:

Potential: Subjective evaluation of «innovation potential»

Initial post: Motivation / intention of initial post, potential «trigger» for innovation activity (Grosse et al., 2018): Needing help, requesting feedback, providing feedback, disseminating information, sharing developments, calling for action

Level of obs.	Category	Label	Exclusivity	
Thread	Innovation activity	Presentation of idea	Non-exclusive	
		Evaluation		
		Implementation		
		Modification		
	Improvement	Innovation potential	Has no potential (0)	Exclusive
	Has some potential (1)			
Has potential (2)				
Initial post	Intention	Needing help	Exclusive	
		Requesting feedback		
		Providing feedback		
		Disseminating information		
		Sharing developments		
		Calling for action		

The story behind the #PIRANHA CLAMP

22/05/2018 at 22:37

Hey!

I (@carlf from the Kunststoffschieme) will share with you the process of how we got to our final mould. It took us nearly 9 months and a team of mainly 4 people.

Don't even think that we were full time on this clamp, but be sure: Product development takes some time...

So here it is:

The way from an idea to a functioning mould.

Sharing developments

IDEA



54 replies 6 subscribers 4 saved 14 likes

01/08/2018 AT 09:46

EVAL

3 ❤️

Good morning
thanks a million [kunststoffschieme](#) for sharing and caring !

I placed the files for further processing in our [mold directory](#) (updates/github there). There is also a preview to the Fusion-360 file [here](#) .

I've modeled the CAM operations so far and from what i see now :
 - 25 Euro for 6600 Aluminium
 - around 14 hours (+/-5h) machining time (because of the narrow slots with a 2 mm ball end-mill) = 140 Euro (incl. electricity, end-mills, labor)
 - 20 Euro Shipping

not sure where to place channel for the plastic entry yet, nor i don't know this can be done actually with Dave's default injection/extrusion machine but i will try my best to get it working for both. I know there is a tool to simulate injection molding... anyone has suggestions ?

thanks,

ps: finally pp got it's first nice open-source mold

IMPL

MOD

IMPR

02/08/2018 AT 16:59

3 ❤️

Ok, here's my first go at making this mould. Made one small Ooops, set the machine origin in the wrong place on the first half! But not a disaster, was able to recover it. I moved the injection point to where I prefer it, added a gate, and threaded it M10. I haven't used the toggle clamp system before, I'll see how it works out. I made the whole mould a bit smaller to save material (kept the same dimensions of the Piranhaclamp obviously).

IMPL

MOD

IMPR

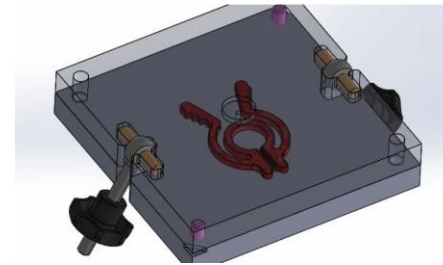
08/08/2018 AT 19:18

2 ❤️

@kunststoffschieme
@adrienluitot

Ok, here's version 2. I made a few small changes. I went back to cap screws to close the mould, more secure and really doesn't take much longer to open (I actually think they are less fiddly and faster to tighten as well).

I made this mould with a draft angle on all the edges except the actual teeth which are parallel. I made it slightly more than 3° and the part is much easier to extract from the mould. I used PP again for these tests (shredded flowerpots).



Sharing developments

labels

IDEA

EVAL

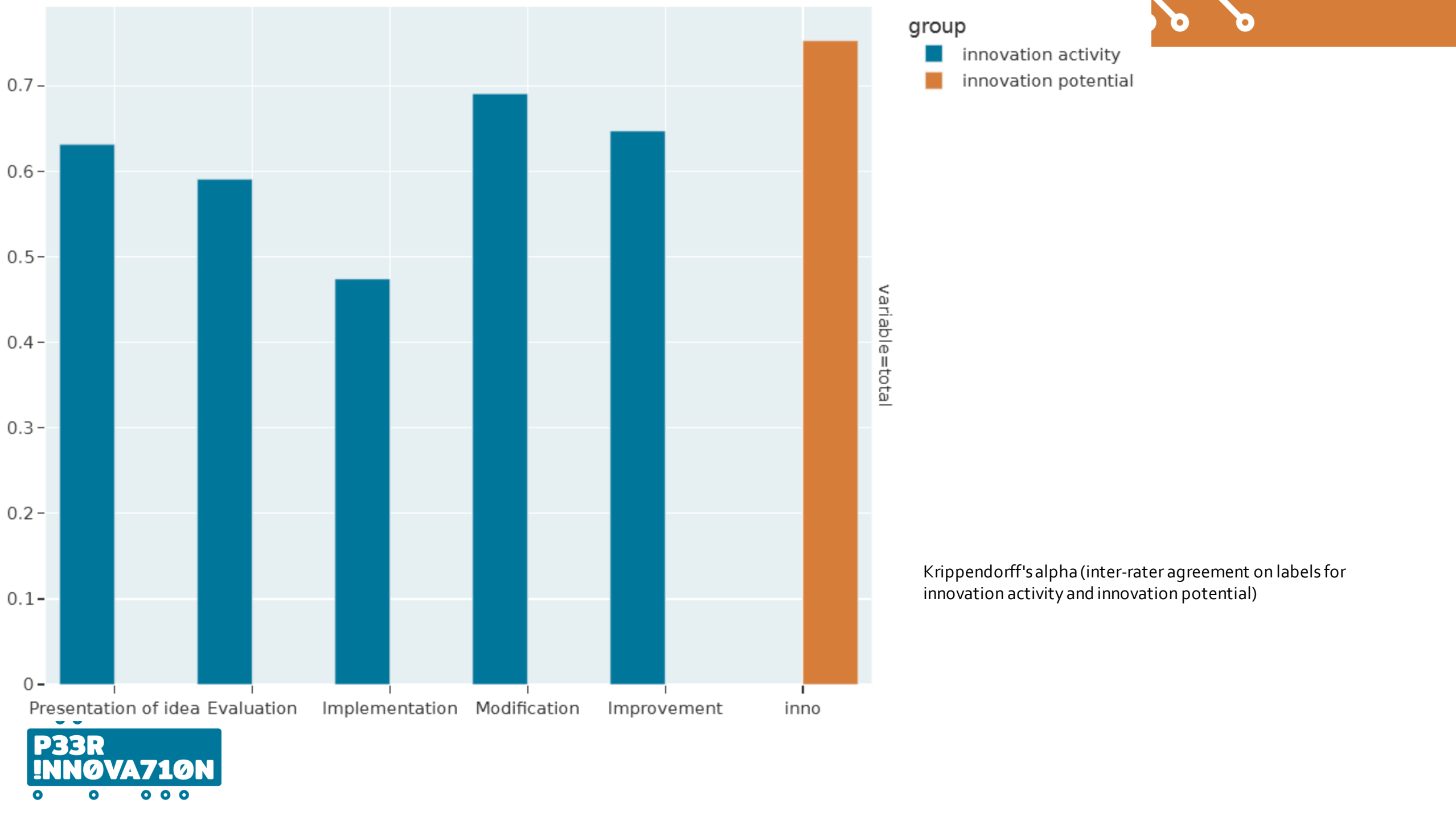
IMPL

MOD

IMPR

Inno Potential: 2/2

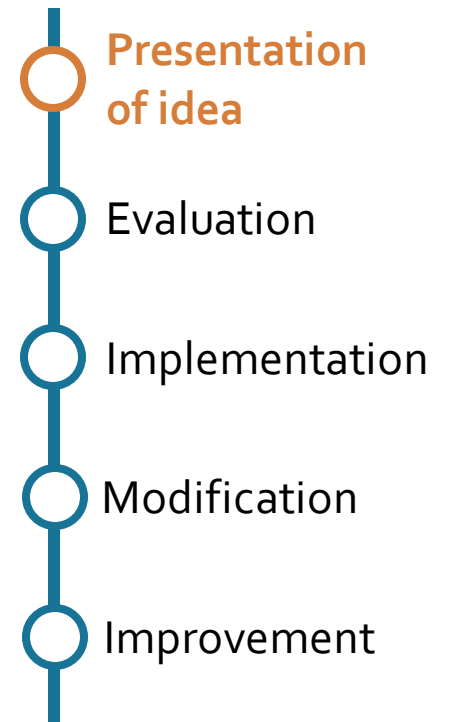
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Presentation of idea

An idea with **added value** or **novelty** is presented in a post within the thread.

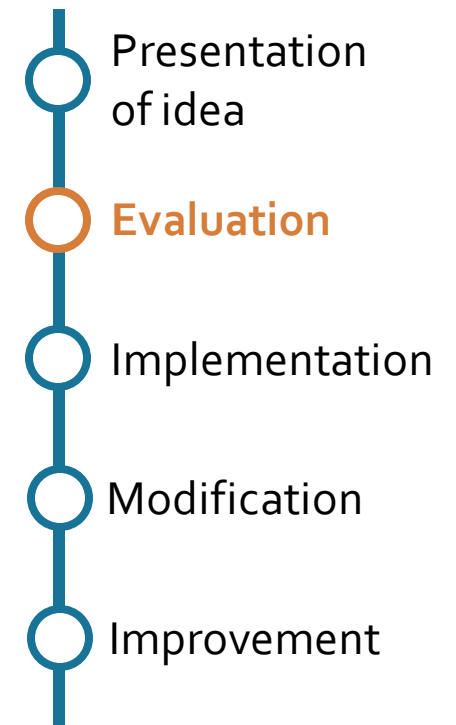
- Irrespective of the associated development status or utilization
- Examples:
 1. "How about creating an iPhone app for OSM?" → No (reaction in the thread shows that such apps already exist: novelty criterion)
 2. Post that presents pictures of a finalized (new) machine → Yes (building the machine is based on an initial idea)



Evaluation

The thread contains an evaluation of a **product, process, or idea that originated within the community.**

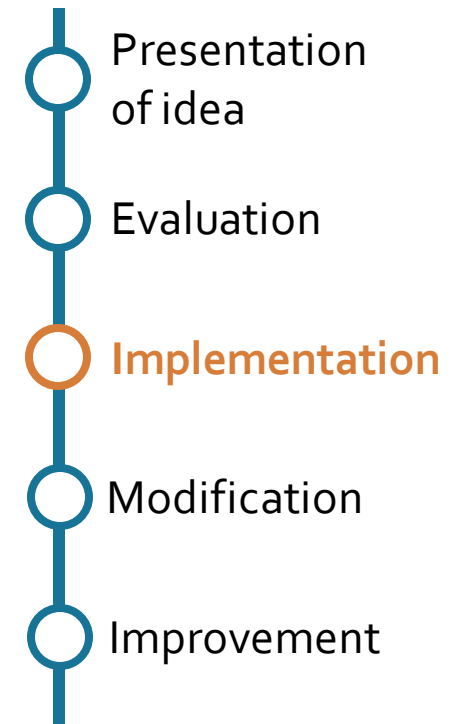
- A typical evaluation assesses the idea's value, potential, feasibility, or relevance or expresses the evaluator's general interest.
- Reactions with an organizational or administrative character, or with the intent of pointing the contributor of the idea to additional material, are not counted as evaluation, e.g., "this is the wrong forum to post in", "you should take a look at this website: XY".



Implementation

One or multiple posts in the same thread indicate that an idea that originated from the community has been implemented by another or the same community member.

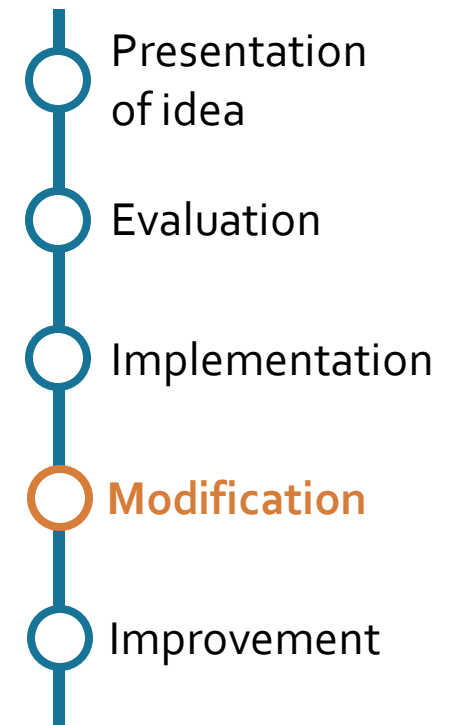
- ...anything that transports the idea/contribution from the interaction in the online forum to the realm of another community member with the aim of diffusing, testing, modifying, or improving it by means of installation, reproduction, or imitation
- Examples: building a machine based on blueprints that were made available to the community, installing new software that was introduced in the thread, running a posted query on a database, applying a newly proposed set of rules to a process.



Modification

A product, process, or idea that originated in the community has been **modified based on a novel idea** by the same person or another member of the community.

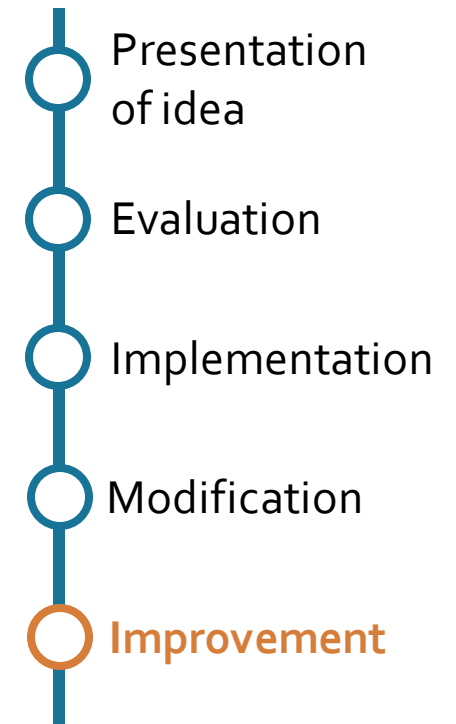
- The modification of an idea or process does not require an implementation.
- A modification is not necessarily an improvement.
- Examples for modifications are: building a machine from available blueprints but with different materials or following a different process, implementing a proposed software with a modified algorithm, proposing an altered set of rules from those currently active in the community.



Improvement

A product, process, or idea previously discussed in the community has been improved by the same or another member of the community by either a) **modification** of the original or b) by a **novel extension** ("add on") or **replacement**.

- The improvement of a process or idea does not require an implementation.
- Example: Correcting an error in a previously presented idea or product is not (necessarily) an improvement. E.g., finding and correcting an error in a posted software code is not an improvement (in the sense of an innovation activity). However, adding a (potentially missing) new feature is.



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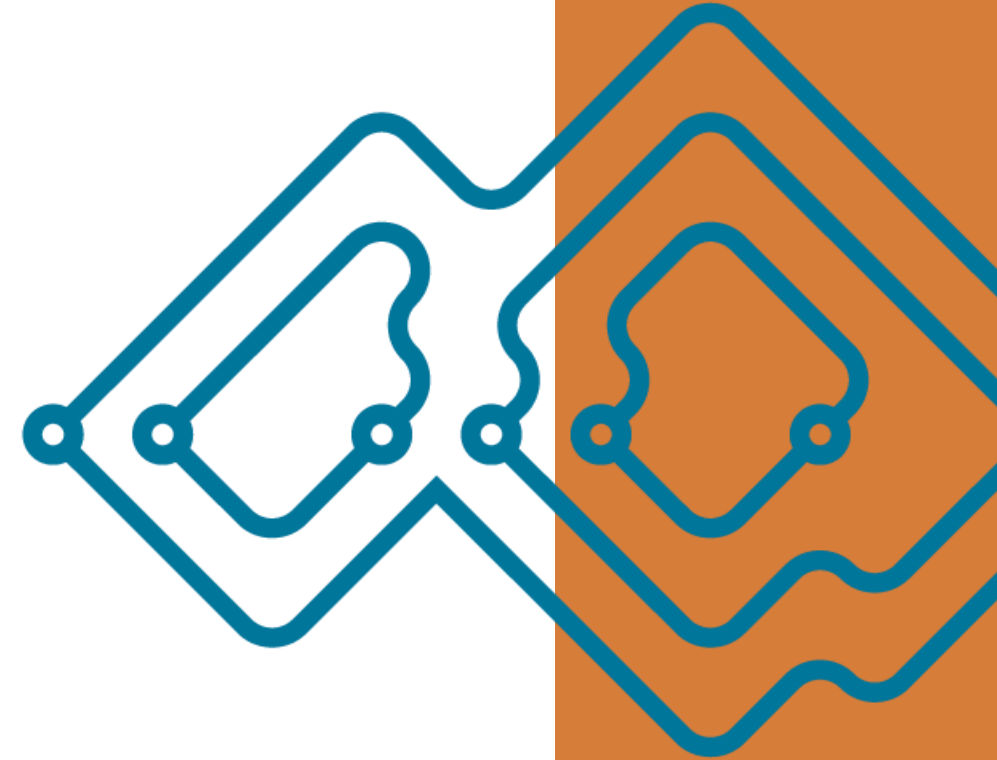
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