

Why collaborate in long-term innovation research? An exploration of user motivations in Living Labs

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Living Lab research

- The Living Lab **process**
- Living Labs **within NPD** processes
- **Case studies** and **applications**
- The **nature** and **setup** of a Living Lab
- The **definition** and **typologies** of a Living Lab
- **Tools** for and **methods** within Living Labs

→ User-centric, but lack of user insights

Understanding user motivations in a LL

- User involvement in innovation development → **Lead Users**
- Users experiencing a **need** for certain solutions or products
- End-user participation in LL research often has a different nature
- Locus of control and place in the NPD process
- Between LU and market research

Research context



Mostly SMEs
close to market
Panel based, iterative, co-creative, multi-method



... (+5)

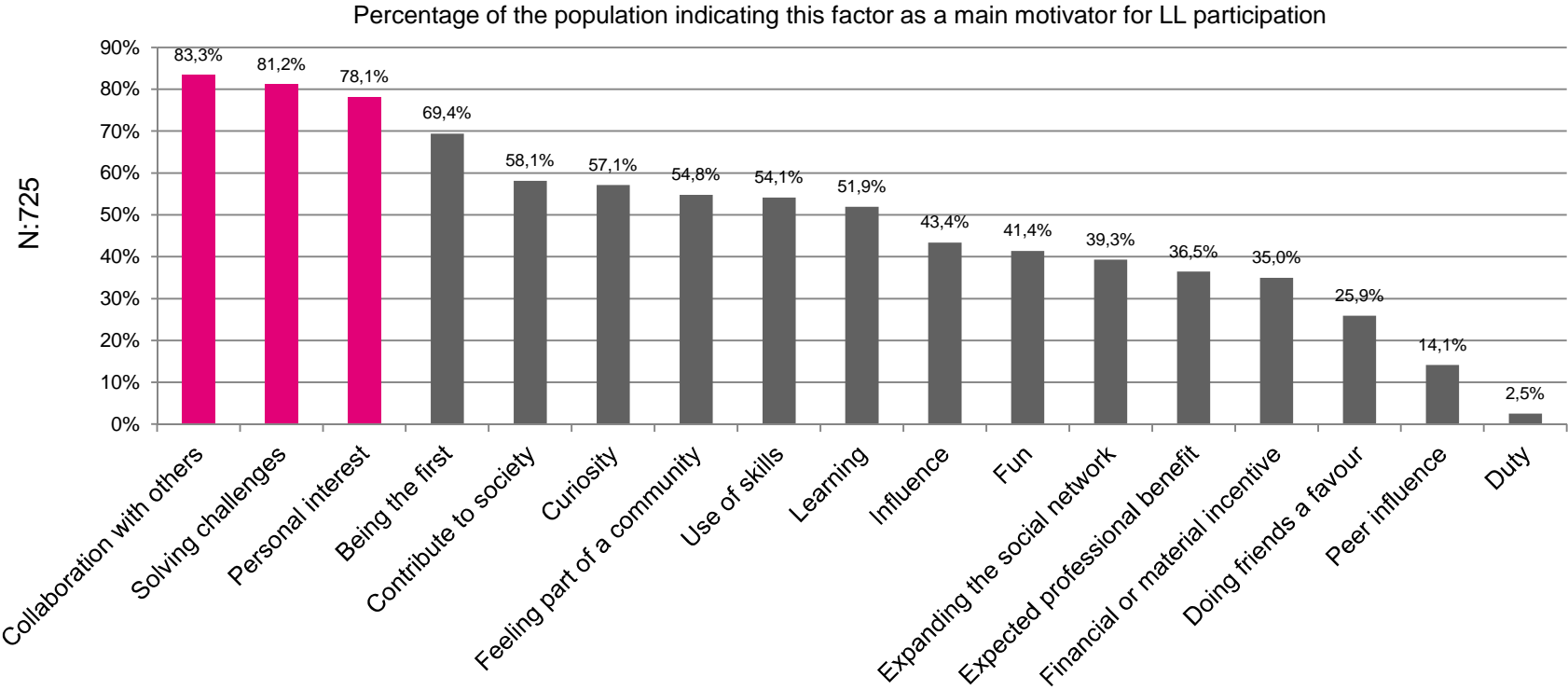


... (+1)

Methodology

- Online (intake) survey, co-creation workshops and field trial
- Binary motivation scale
- Samples
 - 1 online survey (VPP), n: 639
 - 10 co-creation workshops (Mediatuin, LeYLab), n:63
 - 1 field trial (LeYLab), n:26
- Recruitment: on CC workshops & e-mail
- 17 motivational factors

Results: overall motivations



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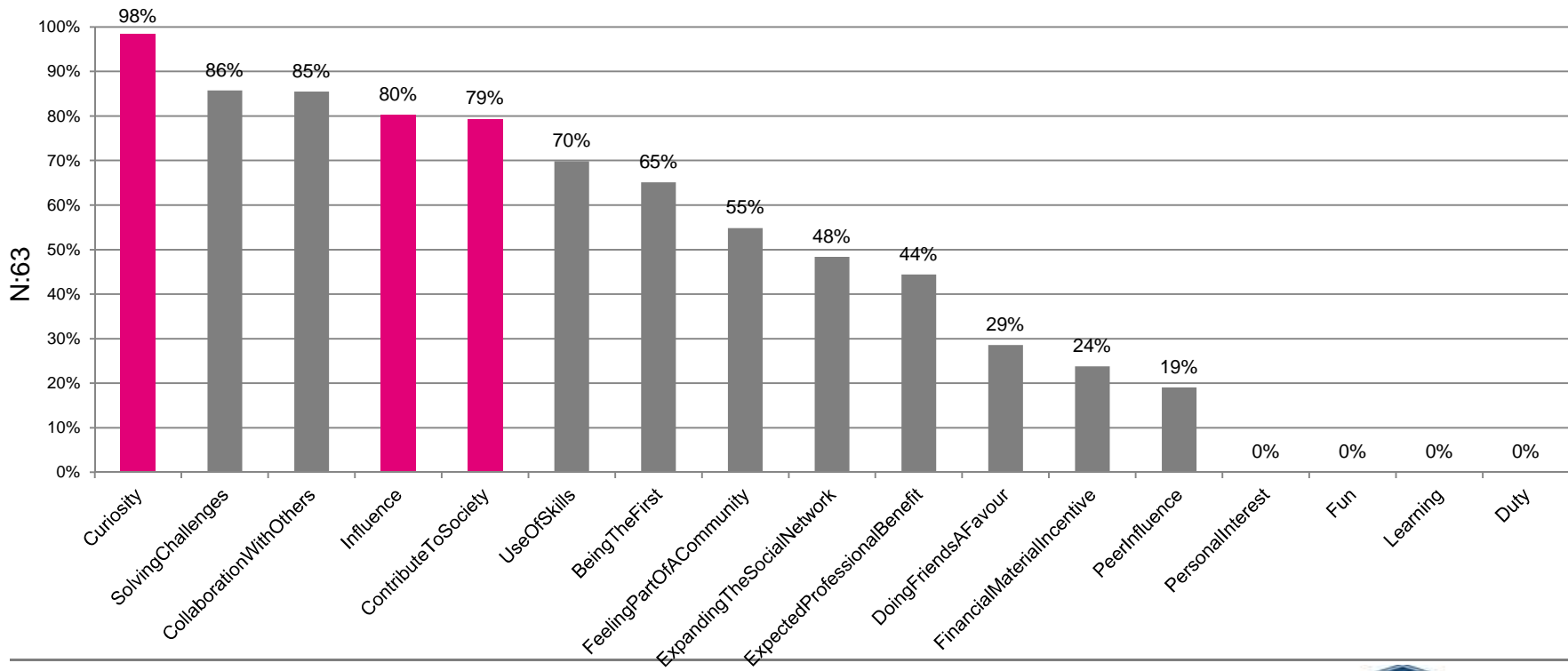
- Most people indicated **three** options/motivations – see top three answers.
- “**financial/material incentive**” – only 9 people indicated this as a single answer
- most people indicated “financial/material incentive” as the fifth or third answer

Results: differences between types of user interaction

- Overrepresented motivations for **co-creation workshops**
 - To **have an influence** ($\chi^2=40.4$, $p<0.01$, Std. Res.=4.4)
 - **Curiosity** ($\chi^2=64.6$, $p<0.01$, Std. Res.=4.3)
 - **Contribute to society** ($\chi^2=12.8$, $p<0.05$, Std. Res.=2.2)
- Overrepresented motivations for **field trials**
 - **Curiosity** ($\chi^2=64.6$, $p<0.01$, Std. Res.=2.4)
- Underrepresented motivations for **field trials**
 - **Use of skills** ($\chi^2=24.2$, $p<0.01$, Std. Res.= -2.9)

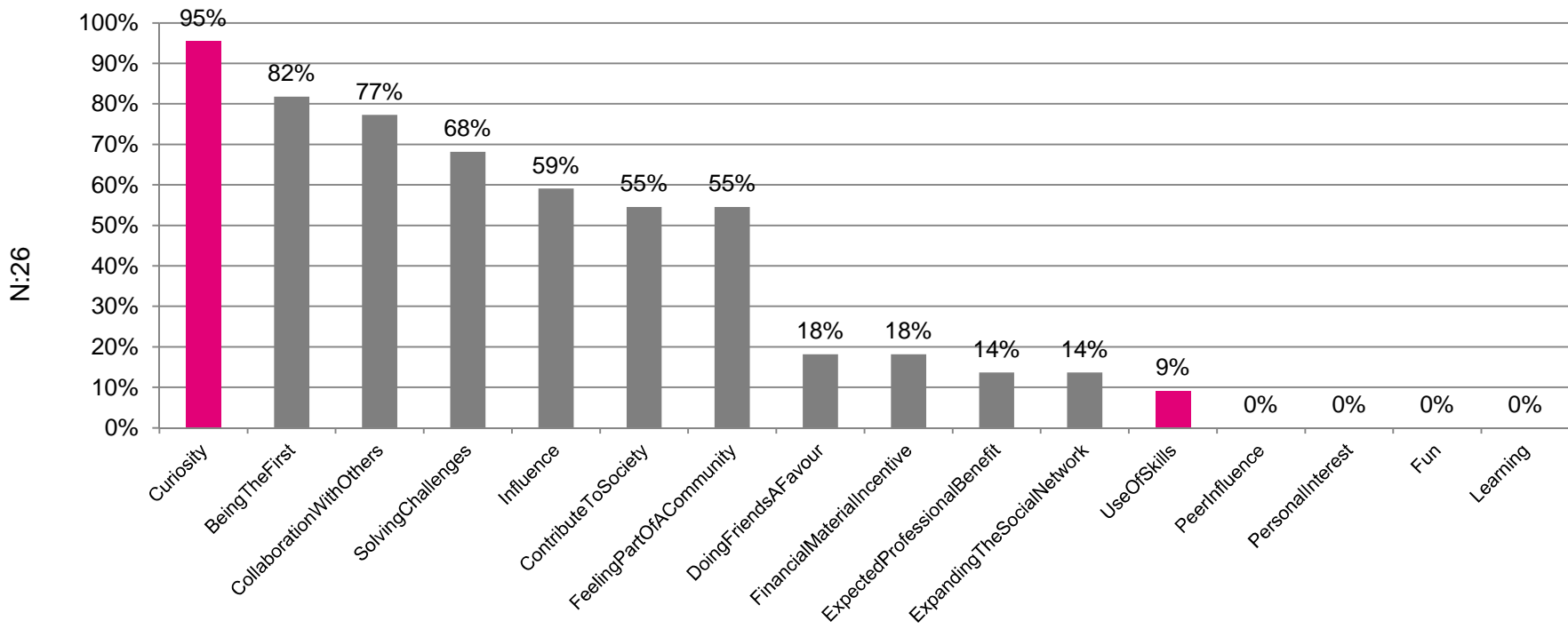
Results: differences between types of user interaction

Percentage of the CC workshop population indicating this factor as a main motivator for LL participation



Results: differences between types of user interaction

Percentage of the field trial population indicating this factor as a main motivator for LL participation



Results: differences between types of user interaction

T-test for the difference in motivation between CC and FT (measured on a 6 point scale from 1: not important at all to 6: very important)

| | Co-Creation versus Field Trial | N | Mean | SD | t | df | Sig. |
|--------------------------------|--------------------------------|----|------|------|------|-------|------|
| Peer influence | ↑ CC | 63 | 2,25 | 1,40 | 2,36 | 66,49 | 0,02 |
| | FT | 22 | 1,68 | 0,78 | | | |
| Expected professional benefits | ↑ CC | 63 | 3,11 | 1,40 | 3,85 | 48,02 | 0,00 |
| | FT | 22 | 2,00 | 1,07 | | | |
| Use of skills | ↑ CC | 63 | 3,87 | 1,36 | 5,49 | 83,00 | 0,00 |
| | FT | 22 | 2,09 | 1,15 | | | |
| Expanding social network | ↑ CC | 62 | 3,27 | 1,31 | 3,60 | 82,00 | 0,00 |
| | FT | 22 | 2,14 | 1,17 | | | |

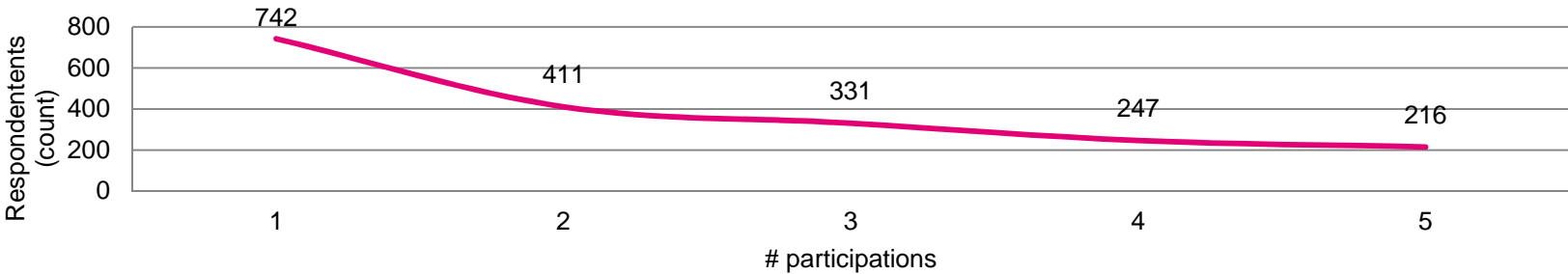
Results: influence of repeated participation

T-test for difference in motivation, depending on previous experience (measured on a 6 point scale from 1: not important at all to 6: very important)

| | Previous LL experience? | N | Mean | SD | t | df | Sig. |
|------------------------------|-------------------------|----|------|------|------|-------|------|
| Use of skills | No | 51 | 3,76 | 1,41 | 2,72 | 83,00 | 0,01 |
| | Yes | 34 | 2,88 | 1,55 | | | |
| Financial/material incentive | No | 51 | 1,98 | 1,16 | 2,65 | 83,00 | 0,01 |
| | Yes | 34 | 2,68 | 1,22 | | | |

Results: relation with repeated participation (VPP)

- When the element of **fun** is integrated within research projects, the response rate over time will be higher
- When you are **eager to learn** something from the research project, the response rate over time will be higher
- When having a **personal interest** for the themes, the response rate over time will be higher
- When you participate **to win** a financial/material incentive, your response rate will slowly decline over time



Results: profiling - gender



Men mostly participate to research projects out of

- (1) Personal interest**
- (2) Learning**
- (3) Contribute to society**



Female mostly participate to research projects out of

- (1) Fun**
- (2) Curiosity**
- (3) Financial/material incentive**

Results: profiling

- Besides gender, **no other remarkable/significant profiling differences** (sociodemo) between motivations to participate could be found
- Interesting tendency: The **Ghent region** (iMinds' center of activity) is overrepresented for **financial material incentive** and **duty** (feeling obliged to participate) → fading away from intrinsic motivations?

Results: profiling – cluster analysis

Final Cluster Centers

| | Cluster | | | |
|------------------------------|---------|-----|-----|-----|
| | 1 | 2 | 3 | 4 |
| Personal interest | 1 | 1 | 1 | 1 |
| Fun | 0 | 0 | 0 | 1 |
| Curiosity | 0 | 0 | 1 | 1 |
| Financial/material incentive | 0 | 1 | 0 | 1 |
| Learning | 0 | 0 | 1 | 1 |
| Contribute to society | 1 | 0 | 0 | 1 |
| N | 148 | 118 | 214 | 143 |

- Cluster 1 = intrinsic, voluntaristic
- Cluster 2 = extrinsic, prizes
- Cluster 3 = intrinsic, individualistic
- Cluster 4 = multi-leveled motivation

Results: profiling – cluster analysis

- All: need for **personal interest**
- Cluster 2 (**extrinsic, prize**): **lower** response rate over time
- Cluster 3 (**intrinsic, individualistic**) & 4 (**multi-leveled motivation**): **higher** response rate over time

Conclusions

- Motivation to participate in a LL is a **multidimensional** construct
- **Intrinsic** motivations for LL participation are most important and sustainable
- Nevertheless there is a relation between **repeated** participation and an increased importance of a **financial material** incentive
- While intrinsic motivations should be central in the design of a LL, extrinsic motivations should not be neglected as a **combined incentive design** is the strongest over time

Conclusions

- Living Labs as a **challenging social game**
- **Creation, intellectual** tasks (self-actualization)
- Attraction to **'the new'** + importance of **personal interest**
- Adapt to the **different sensitivities** of each **research method**
- Adapt to **gender differences** in order to overcome bias

And now ...

- Search for **theoretical models**, revealing more complex motivational constructs and connect with theories in other domains
- Need for **measurement**: self-representation versus experimental environment/setup
- Elaborate on the impact of **contextual factors**
- Understanding **power-users/alpha-users**
- **Longitudinal** research on changing motivations over time, in relation with panel drop-outs

More information?

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- <http://www.iminds.be/en/develop-test/ilab-o>
- <http://www.leylab.be/>
- <http://mediatuin.be/>
- <http://vlaamsproeftuinplatform.be/>