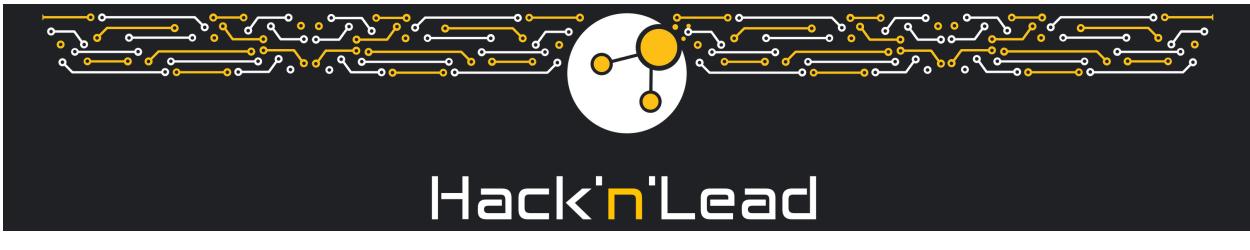


Hack'n'Lead

## PROJECT SUMMARY

Team: Code for Impact  
Product name: ImpactDash

11 -12 November 2023



# Hack'n'Lead

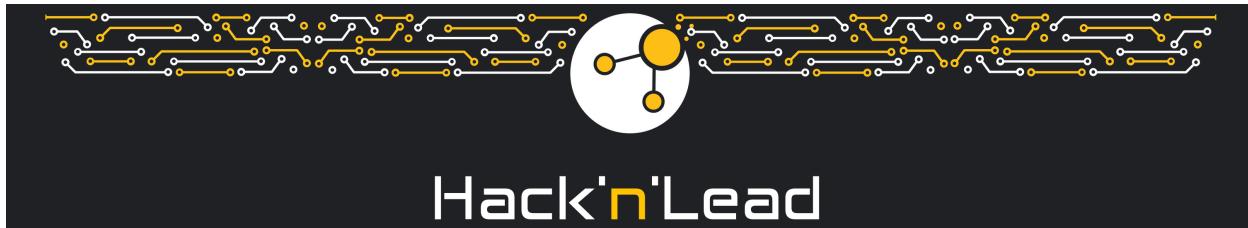
## 1 Project basics

Project type: web application development

Github repo: <https://github.com/dlhaar/hack-n-lead-2023/tree/main>

Team

Name	Responsibility in Project	Email address
Anne Estoppey	Data Science, Software development	anne.estoppey@gmail.com
Deborah	Data Science, Software development	dlhaar@gmail.com
Mirela Christescu	UX / UI Expert	mirela.christescu@gmail.com
Michael Huber	Data Scientice, Pitching,	dr.michael.p.huber@gmail.com
Viktoria Mayer	PM	mayerviktoria44@gmail.com



## 2 Project brief

### 2.1 Challenge

#### Context

How do you measure impact? This is a problem many non-profits, especially non-profits in the social sphere, face every day. In an age where data-driven decisions are the gold standard for decision-making, how do you measure your success when financial returns do not necessarily factor into the equation? Non-profits face increasing pressure to demonstrate the impact they have in order to receive support from the government, sponsors, and the community at large. So how can this be done? That is the question you will seek to answer as part of the women++ challenge for Hack'n'Lead.

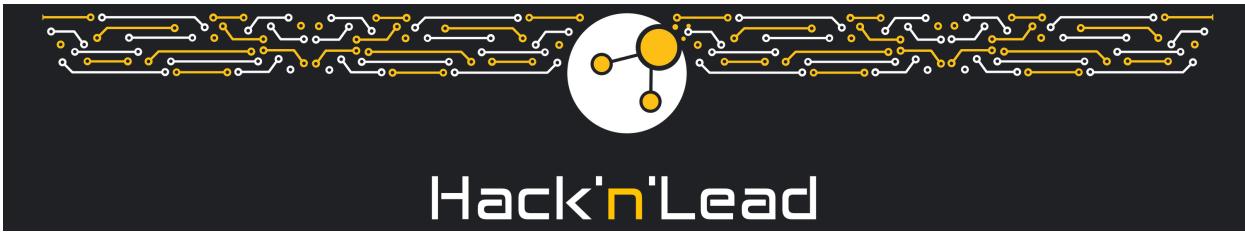
#### Challenge Description

The aim of this challenge is for you to create a software solution to support non-profit organizations in defining and tracking their impact.

While your solution ideally is built in a way that allows sufficient customization to cater to a diverse range of organizations, we are conscious of the fact that this is an ambitious goal to begin with. Therefore, it may help you to narrow down your target audience both geographically as well as by topic. So you may for instance want to develop an impact tracker app for non-profits dedicated to increasing diversity in the Swiss tech industry.

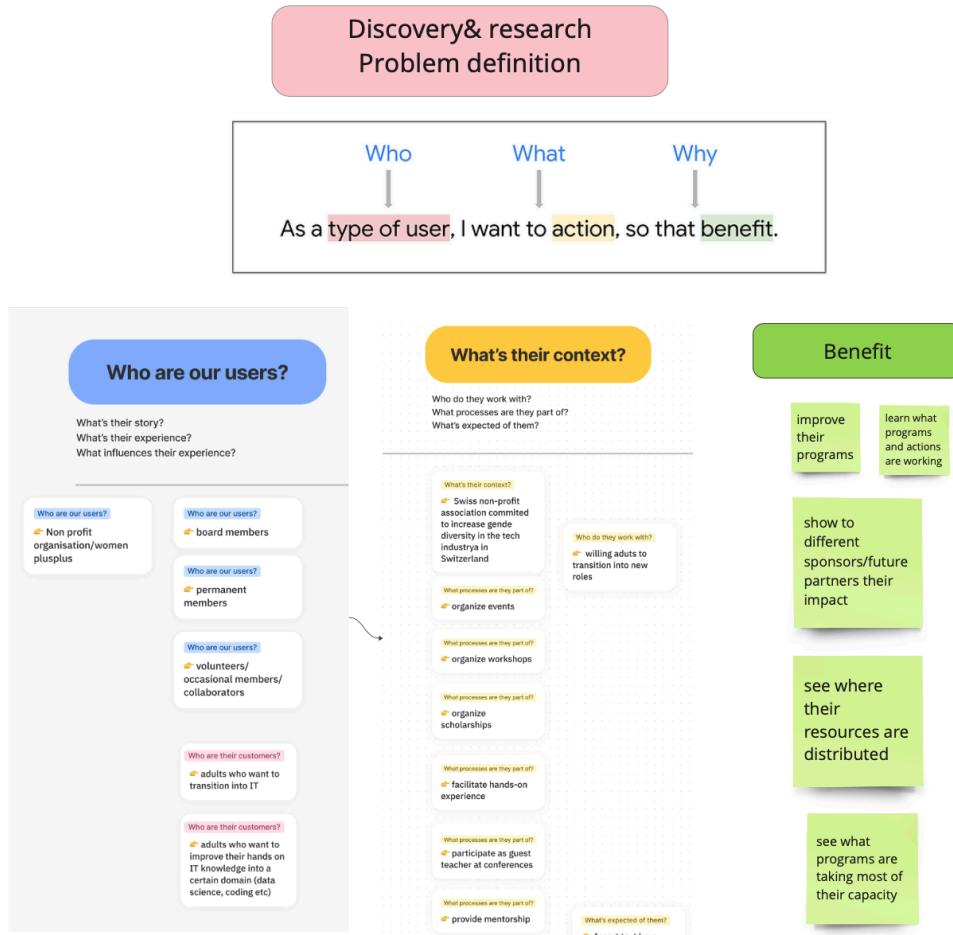
#### The problems of potential users of our solution:

- Organisations cannot **define, measure and track their performance and impact**.
- Organisations cannot properly quantify which of their programmes are **most effective, making it difficult to prioritise and improve their activities**.



- **Collecting information** is difficult for them. On the one hand, they want to measure qualitative change, so secondary data collection is not enough, we need to reach out to participants and collect information on personal experiences.
- They need data for analysis that can only be measured when the stakeholders are no longer in direct contact with the organisation and/or there is no clear link between the values received from the organisation and personal success.

It's also worth looking at the problems of the other stakeholders, and here we're talking primarily about the funding organisations. For them, it is **difficult to determine how effective an organisation's activities are, how much value they bring** and whether they are sustainable or worth maintaining in the long term.



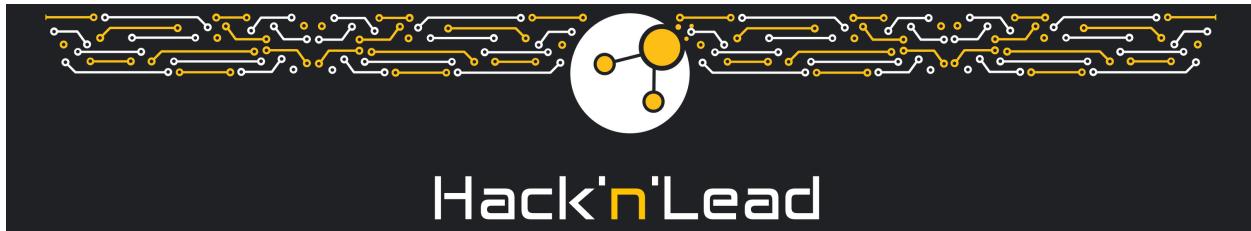


## 2.2 Personas

Our main users, **womenplusplus and organisations with similar activities**, are interested in addressing these challenges and measuring their impact and success. Based on the information collected, the most important characteristics of our persona / main user group are:

- they are engaged in activities whose results are mainly qualitative, difficult to measure and translate into numbers
- has not enough capacity to do data collection and analysis
- they use grant money to run their organisation (strong financial dependency).

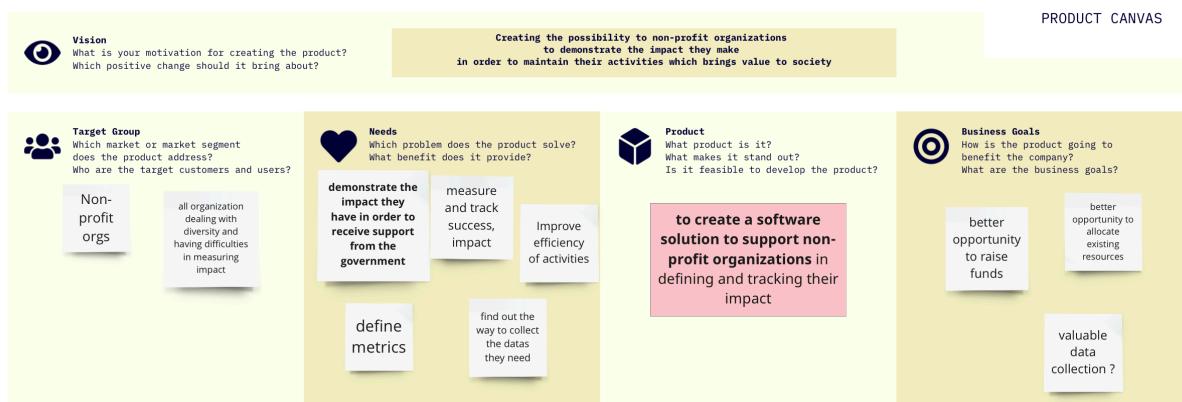
We have also been able to identify a number of other personas who could benefit from the data and information provided by our solution, such as sponsors, partner companies, government.

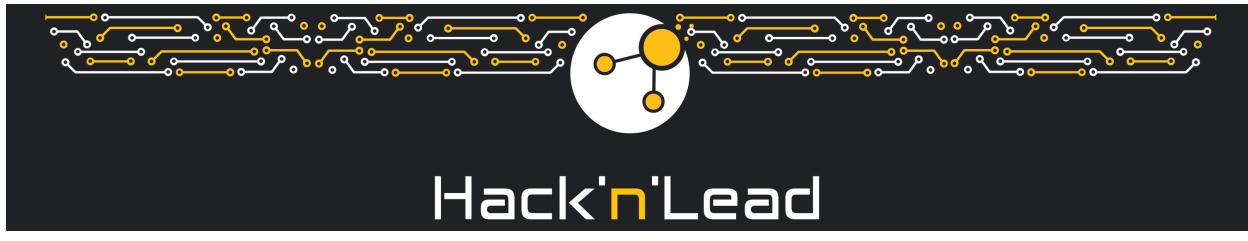


## 2.3 Vision

After identifying the root problems and getting a deeper understanding of the details of the challenge, the product vision was formulated as follows:

**Creating the possibility to non-profit organizations who wants to increase diversity in swiss tech industry to demonstrate the impact they make in order to maintain their activities which brings value to society**

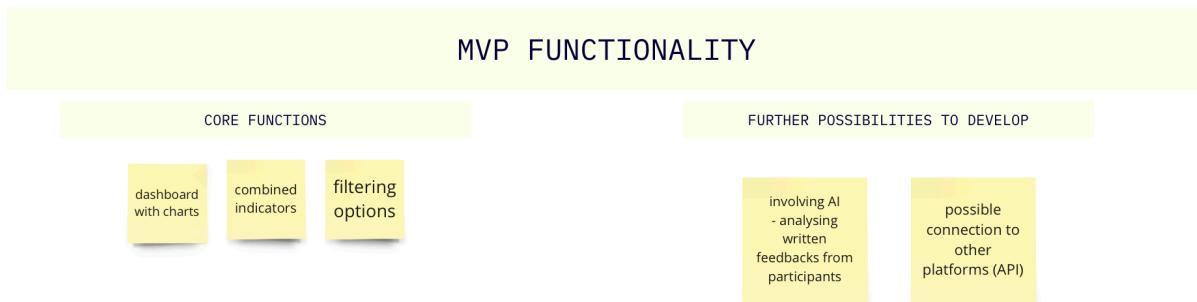


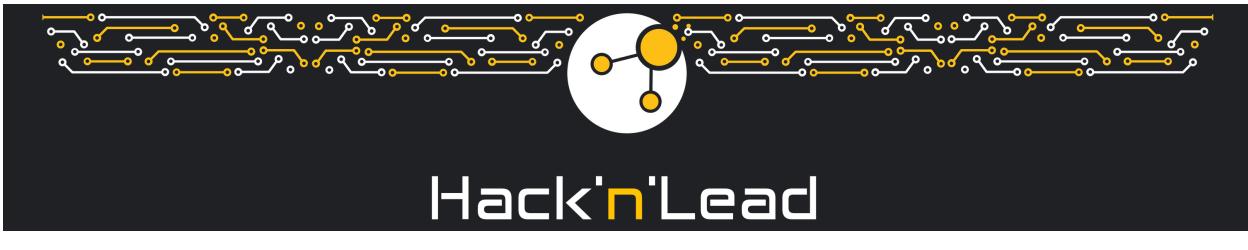


## 2.4 Solution

Based on the above needs, objectives and the characteristics of the persona, we decided to create a comprehensive solution/concept:

1. We have identified the indicators that can most effectively show the impact of activities.
2. We propose the data needed for the indicators and have prepared questionnaires for this purpose.
3. We created a dashboard for organisations to track and analyse the information collected.





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### 3 Identifying and defining metrics

In order to find the right indicators we did some preliminary research, reviewed the materials we received and tried to gather information from womanplusplus as Product Owner.

#### 3.1 Possible indicators based on research

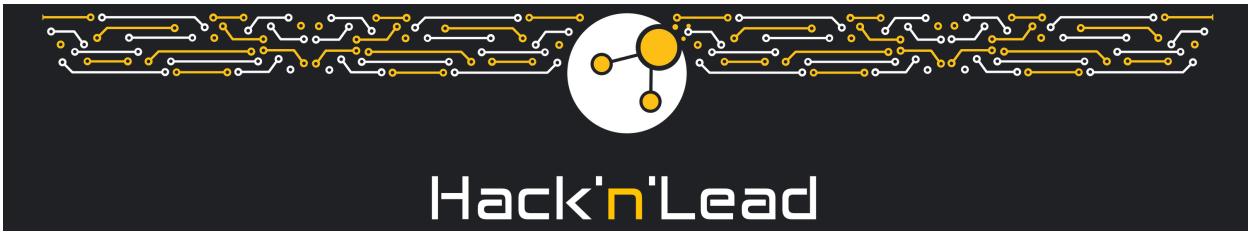
Based on our research, we have concluded that the following indicators which can be useful an important when we want to measure impact.

Most important indicators for PO:

- how many of the event participants find a job
- how many event participants are able to make a career change
- whether the number of job interviews has increased since attending the event
- did participants learn new things (hard or soft)
- did their confidence change, did they become more confident
- are they more engaged in social media with the organisation since attending the event
- whether there is a link between participation in the event and successful job search.

Basic indicators:

- Number of participants
- Number of applicants to an event
- Nationality of participants
- Gender distribution of participants
- Educational level of participants
- Current occupation of participants
- Current experience level of participants
- Number of volunteer hours spent on events



## Hack'n'Lead

- Resources devoted to the event
- Cost per participant

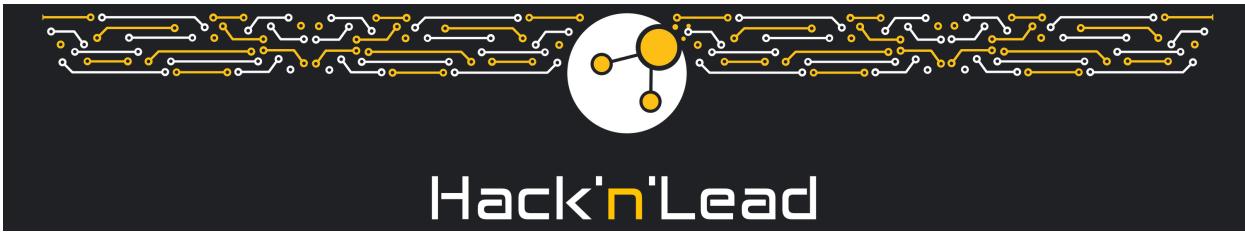
Other indicators:

- New participant acquisition rate
- Donation by channel: Volunteer [h] spent
  - o Number by company
  - o Number by public funds
  - o Number by private sectors
- Delivered solution to companies
- Conversion rate: number of participant who turned to volunteers
- Donor retention rate: to how many events does a volunteer return [# events / volunt]
- Donor churn - Volunteer, who do not come any more
- Email subscription
- Email click rate
- Email open rate
- Unsubscribe rate
- Amplification: analysis of social media posts (insta, linked-in)
- Number of sponsors
- Number of praise in press
- Annual Investment: donations vs. expenses

### 3.2 Defined indicators

Based on a detailed analysis of the problem and the research results, the team decided that the following indicators could provide a high level of evidence of the success and impact of the organisation's activities. These will be displayed on the dashboard:

- NET Promoter Score: how many of the participants would recommend the event to other people
- how many of the event participants find a job
- did participants learn new things (hard or soft)
- did their confidence change, did they become more confident



- Number of participants
- Nationality of participants
- Number of volunteer hours spent on events
- Cost per participant

We also created an overall success metric, which is a combination of 3 indicators:

- NET Promoter Score: how many of the participants would recommend the event to other
- how many of the event participants find a job
- did their confidence change, did they become more confident

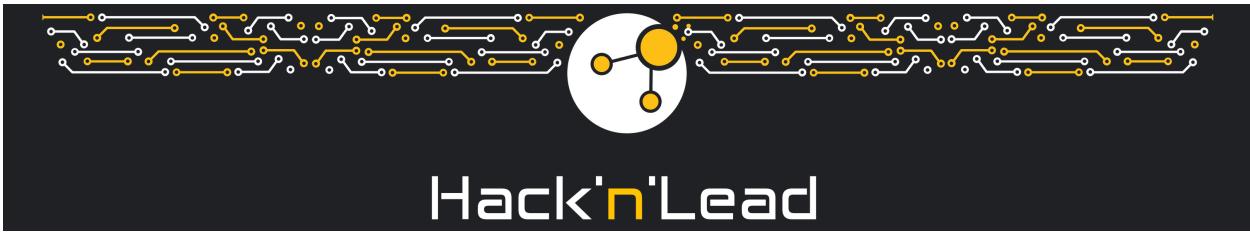
## 4 Collecting datas

In order to analyse the selected indicators, we need to collect the necessary data. Given that most of the information needed for the statements can be provided by the participants, we have prepared the questionnaires needed to collect the information.

The first questionnaire will be sent out after the event closes.

The second questionnaire will be sent out 3/6/12 months after the event, given that we want to measure data that is likely to be generated in the longer term.

The questionnaires are attached in the last chapter of this document.



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### 5 Dashboard

We have built our dashboard from the indicators above, making sure that it is transparent and still provides the user with all the important information.



**women++**

**Impact Dash**  
Get summary of your Hack'n'Lead event.

**Chris N**  
Admin account

**Hack'n'Lead**

- deploy (impact)
- Workshop Code
- Webinar
- Goals
- Settings

**Participants**  
Geographical distribution

**124 total**  
Participants  
78 First time participants  
45 Returning participants  
Switzerland only

**Successes metrics**

- 4 participants got a job after 12 Months
- 8 Impact score
- 5720 Volunteer Hours
- 4982 CHF spent
- 49,5 CHF spent per person

**Promoter score**  
Willingness to recommend the event to others

**NPS 35**

**Motivation score**  
Motivation level

**Desire to become a volunteer in the future**  
Willingness to join the team

**Generate pdf report**



## Women++ ImpactDash

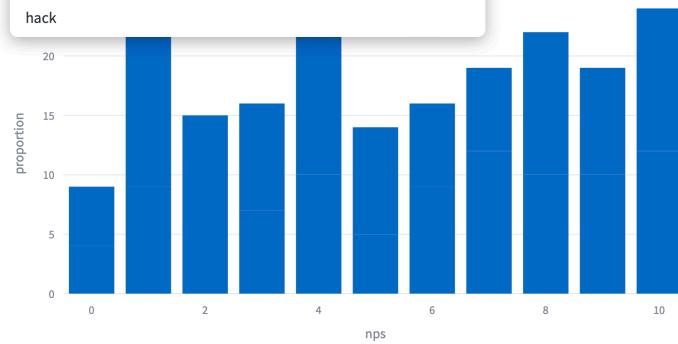
How likely would you recommend this event to someone

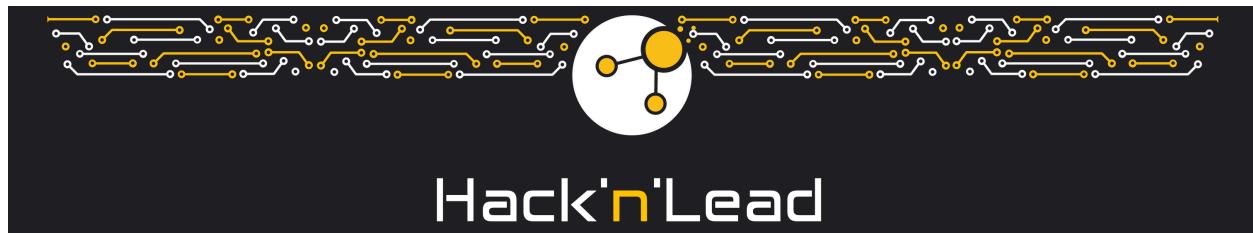
Select event

bootcamp

all

hack





# Hack'n'Lead

## Net promoter score

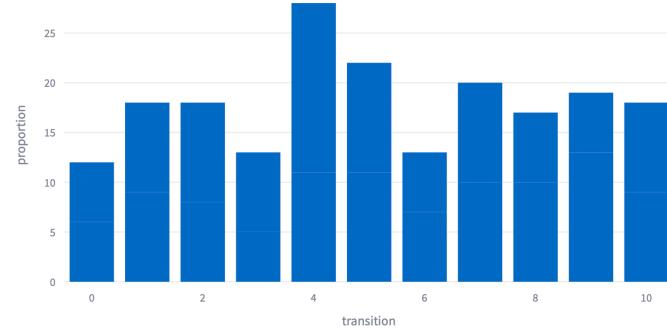
45

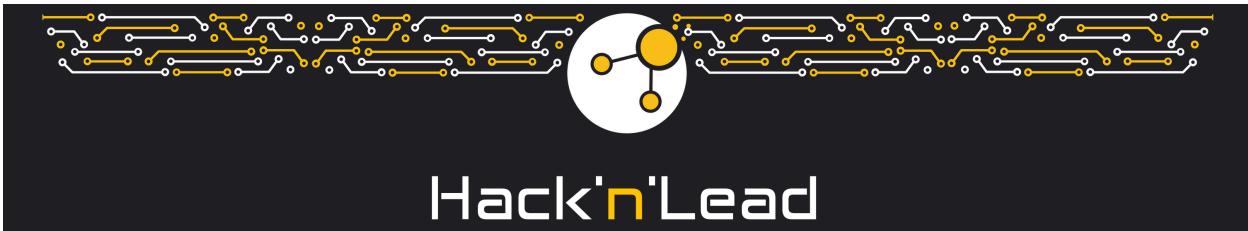
Most participants would recommend this event.

## How helpful was this event on your transition into the tech industry

Select event

bootcamp

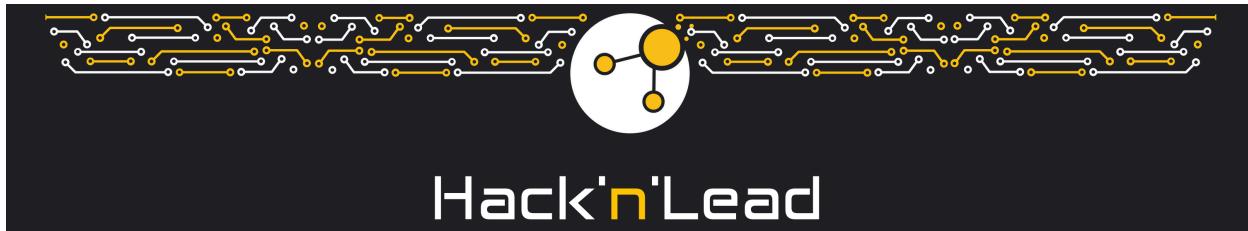




## 6 UX Design

The design of the wireframes was preceded by research and very careful consideration and prioritization of the problems identified. The table below summarizes the design responses to each of these needs and so how the application will respond to them.

<b>Problem, need to address</b>	<b>Solution in UX</b>
Lot of possibility for indicators	display of the most important and effective indicators
Data difficult to analyse	transparent and easy-to-understand statements from the data received from the questionnaires
Different needs of user	filterable content and views tailored to different needs
“Corporate” design	Using fitting color palette



## 7 Implementation

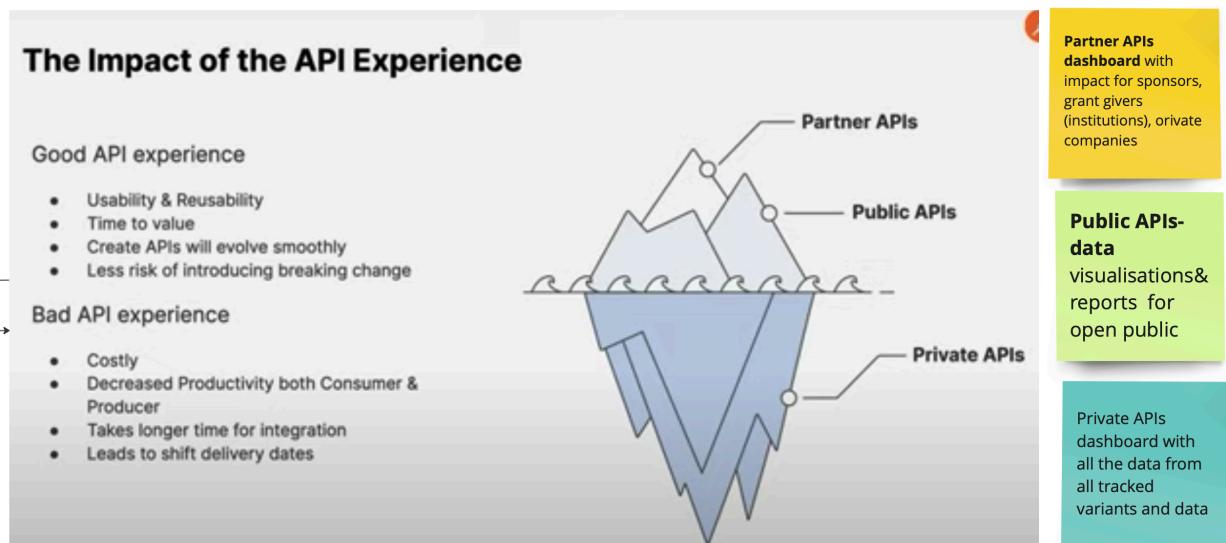
### 7.1 Product & Technical Specifications

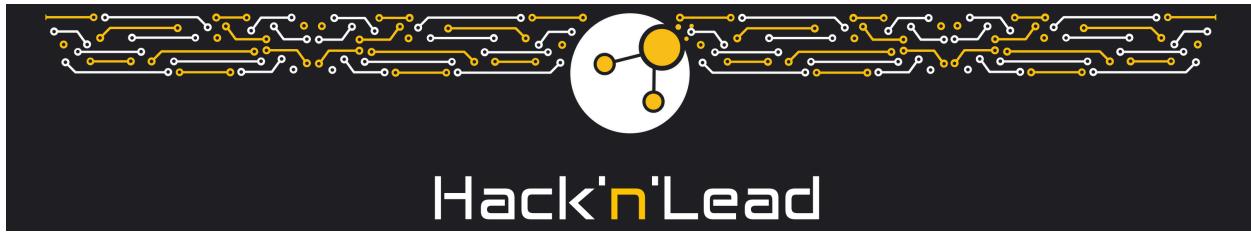
The application is built using Streamlit. To generate your own dashboard: Data is gathered via a Google Survey.

- Access the survey in the docs folder.
- Save the results of the survey as a .csv to the data folder.
- Click on the Streamlit link to deploy the application

### 7.2 Further development opportunities

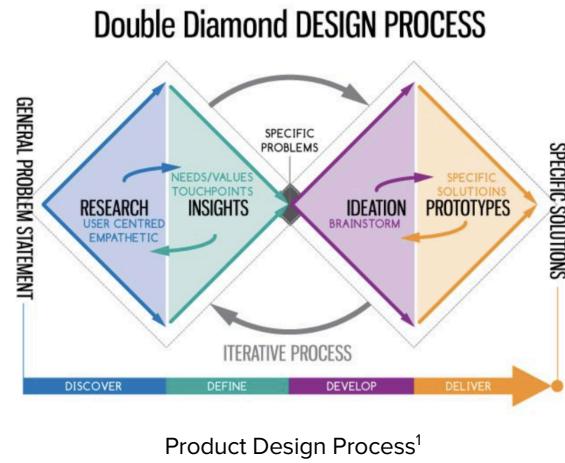
- Automatic data extraction from questionnaires
- Create API connection



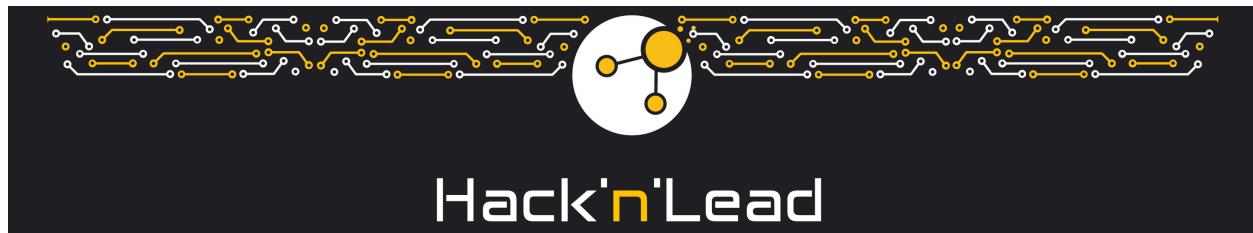


### 7.3 Methodology of implementation

During the implementation of the project, we tried to follow the steps of the design process used in product development. The length of each step and the overlap between them varied according to the specific characteristics of the project, but the team worked through each stage of the process.



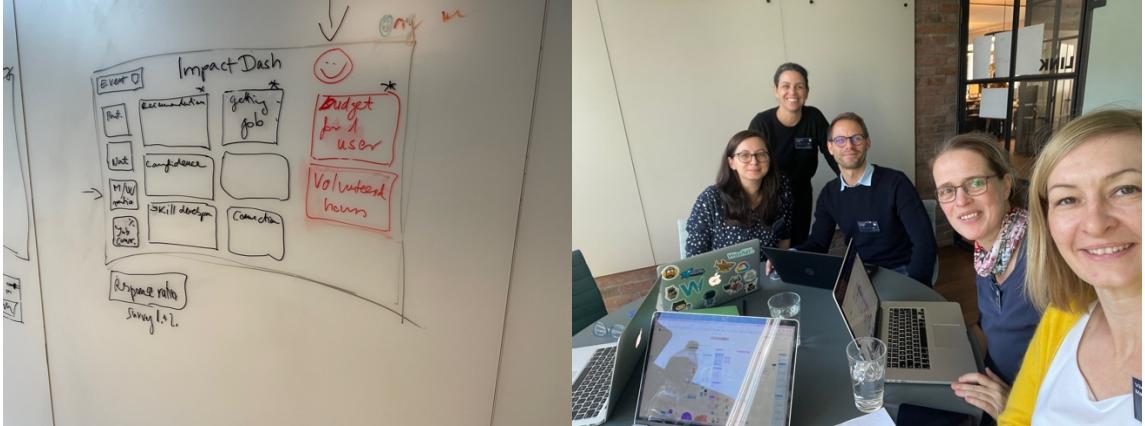
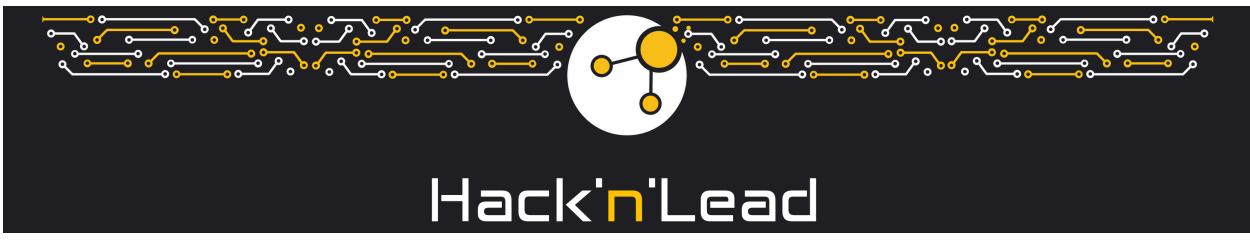
<sup>1</sup> Source: <https://www.medien.ifi.lmu.de/lehre/ss17/id/Day%203%20Approaches%20to%20ID%20.pdf>

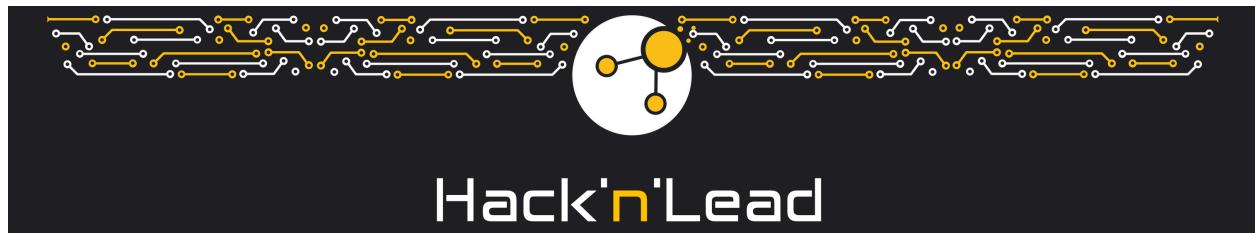


# Hack'n'Lead

# THANK YOU!



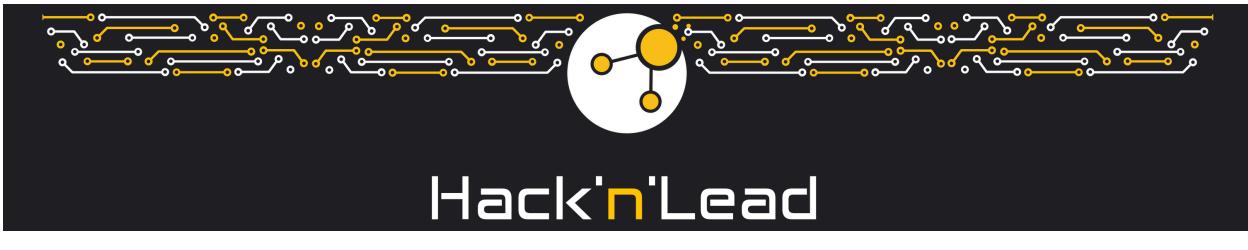




8 Annex

## 8.1 Surveys

## Survey after the event:



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5. Choose one or more soft skills which you have developed during the event?

- collaboration with different professions in a team
- approaching people
- communication skills
- none

6. How much did the event boost your confidence to succeed the transition into the tech industry?

0    1    2    3    4    5    6    7    8    9    10

Not at all          Very much

7. Are you a member of one of our partner communities?

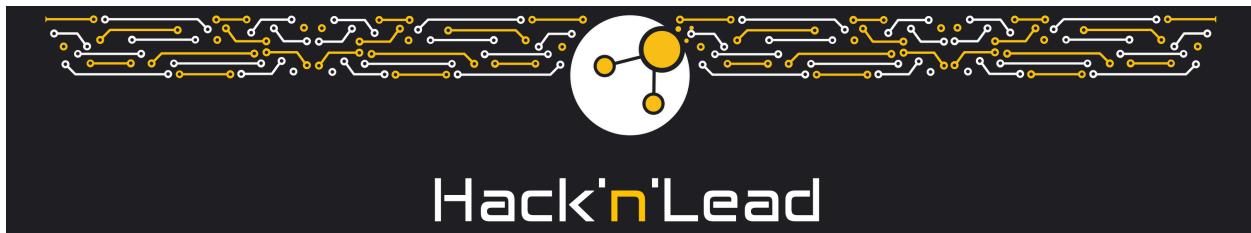
- No
- Yes, Women in AI
- Yes, WomenXYZ
- Yes, others

8. Is there anything else you want to share with us?

Your answer

[Submit](#)

[Clear form](#)



## Hack'n'Lead

Survey after 3/6/12 month

How motivated are you to enter/work in the IT field?

0 1 2 3 4 5 6 7 8 9 10

Not motivated           Very motivated

2. For how many jobs did you interview during the past 12 months, which you think are related or resulted from participating in the event?

0 1 2 3 4 5 6 7 8 9 10

3. In the past 12 months did you transition into IT and gain a job in IT sector?

Yes  
 No  
 N/A

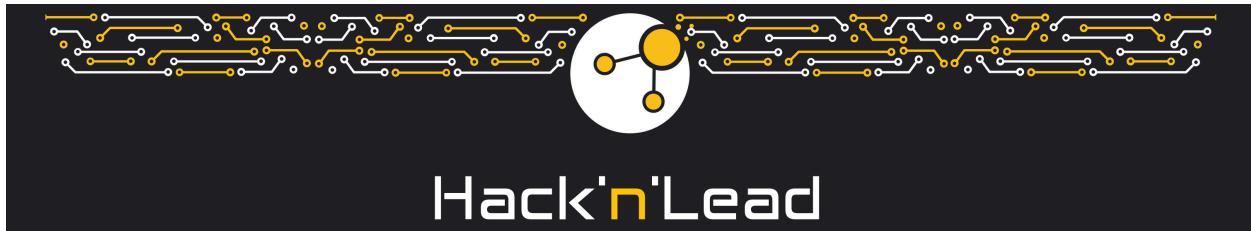
4. How much did the event boost your confidence so you succeed the transition into the tech industry?

0 1 2 3 4 5 6 7 8 9 10

Not at all           Very much

## 8.2 Research material

1. 25 KPIs for nonprofits: <https://www.indeed.com/career-advice/career-development/kpis-for-nonprofits>
2. <https://www.bonterratech.com/>



3. <https://www.sopact.com/>
4. Practical Guide measuring and managing impact  
[https://www.evpa.ngo/sites/www.evpa.ngo/files/publications/IMM\\_Guide\\_2015\\_EN.pdf](https://www.evpa.ngo/sites/www.evpa.ngo/files/publications/IMM_Guide_2015_EN.pdf)
5. 5 metrics for social impact measurement - Maybe interesting when choosing metrics:  
<https://www.boardofinnovation.com/blog/metrics-social-impact-measurement/>
6. Understanding the needs: <https://www.linkedin.com/pulse/measuring-social-impact-micmconsultancy/>
7. <https://www.instrumentl.com/blog/importance-of-nonprofit-impact-measurement#:~:text=Nonprofit%20impact%20measurement%20allows%20you,anda%20better%20allocate%20its%20resources>
8. [https://www.education-inequalities.org/indicators/preschool#maxYear=2021&minYear=2016&ageGroup=%22preschool\\_1ybefore%22](https://www.education-inequalities.org/indicators/preschool#maxYear=2021&minYear=2016&ageGroup=%22preschool_1ybefore%22)

Goal: to develop an app for a nonprofit that measures impact (increasing diversity in tech) by getting exit data from event participants.

Impact questions/criteria	Data to collect
Did you meet a mentor or make connections that will help you get into tech or further your career in tech?	
Did you speak to a recruiter at the event	
How would you rate the impact this event (hackathon) had on your transition into tech or your advancement in tech	
How likely would you volunteer for an event in the future	
How likely would you recommend this event to someone else (NPS)	



## Hack'n'Lead

Become a member of other organizations with the same mission → e.g. sign up for the WiMLDS Zurich meetup

Click through rate

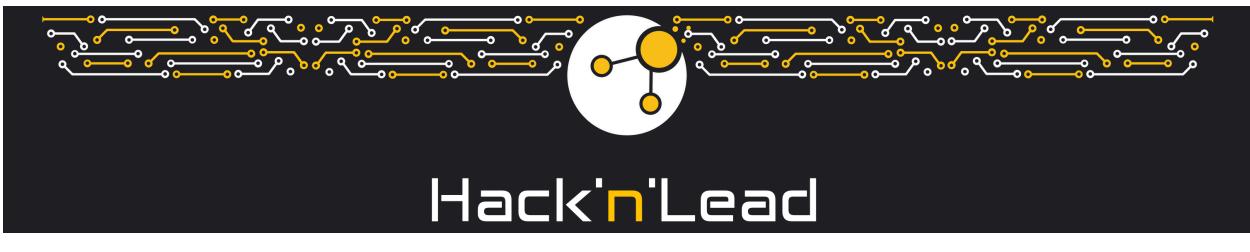
Other ideas to measure impact: HEART framework from Google

Happiness		
Engagement	How engage where the participants- How engaged are the mentors how engage after the hackathon are the teams How	
Adoption		
retention		
Task succes		

Participant financial donations

Number of sponsors, community

Group by volunteers



Hack'n'Lead