International Institute for Applied Systems Analysis
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science for global insight

Fotoquest go: a smartphone app to collect land cover and land-use data

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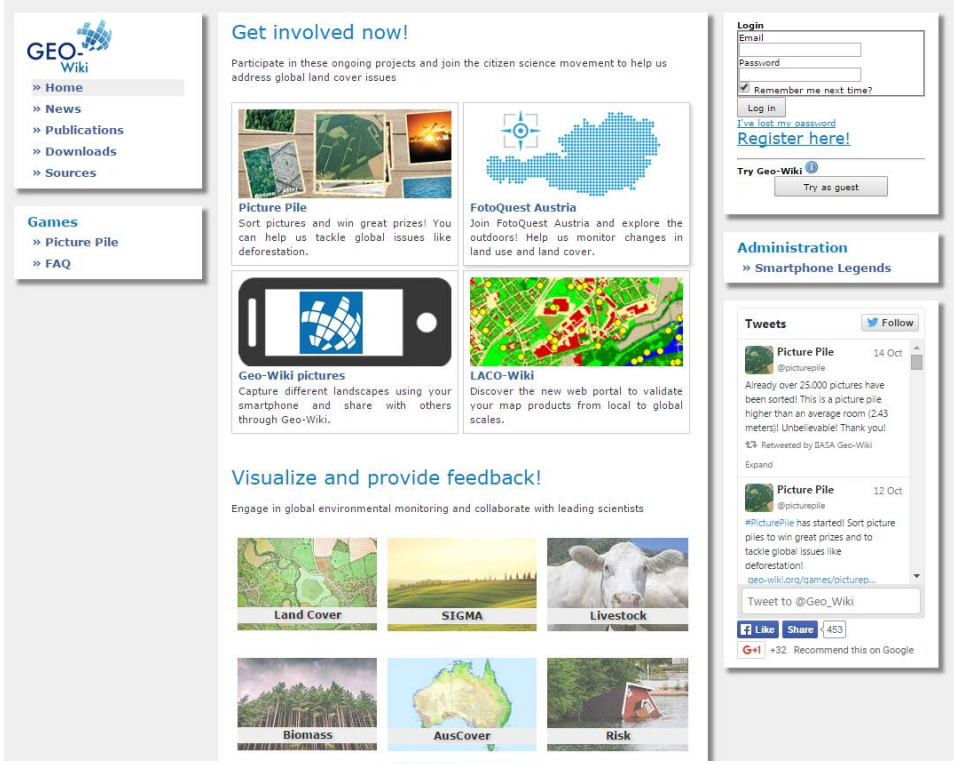
Earth Observations Group

Ecosystems Service and Management (ESM)

Geo-Wiki Engagement Platform

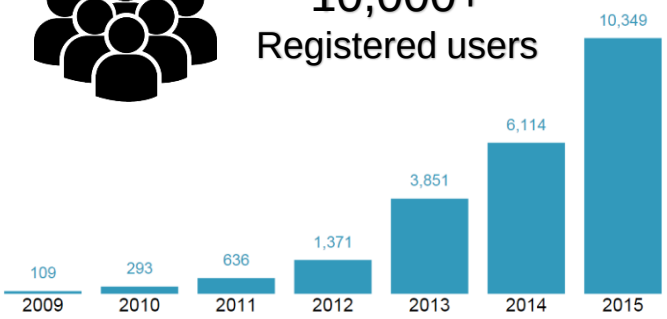
Geo-Wiki is an open platform that provides citizens with the means to engage in environmental monitoring by providing feedback on existing spatial information overlaid on satellite imagery or by contributing entirely new data.



GEO-Wiki

http://www.geo-wiki.org/

10,000+
Registered users

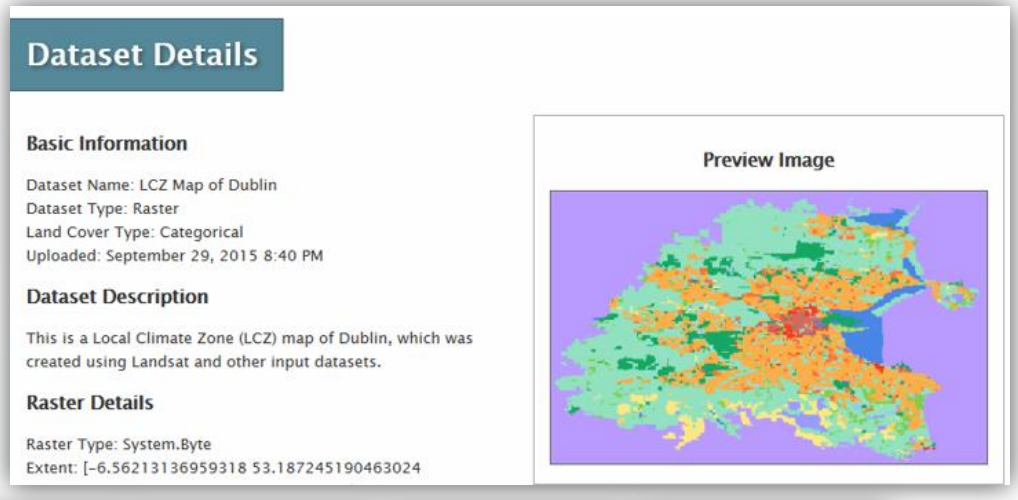


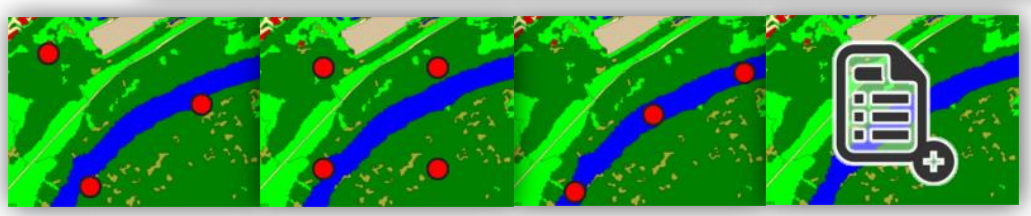
IIASA

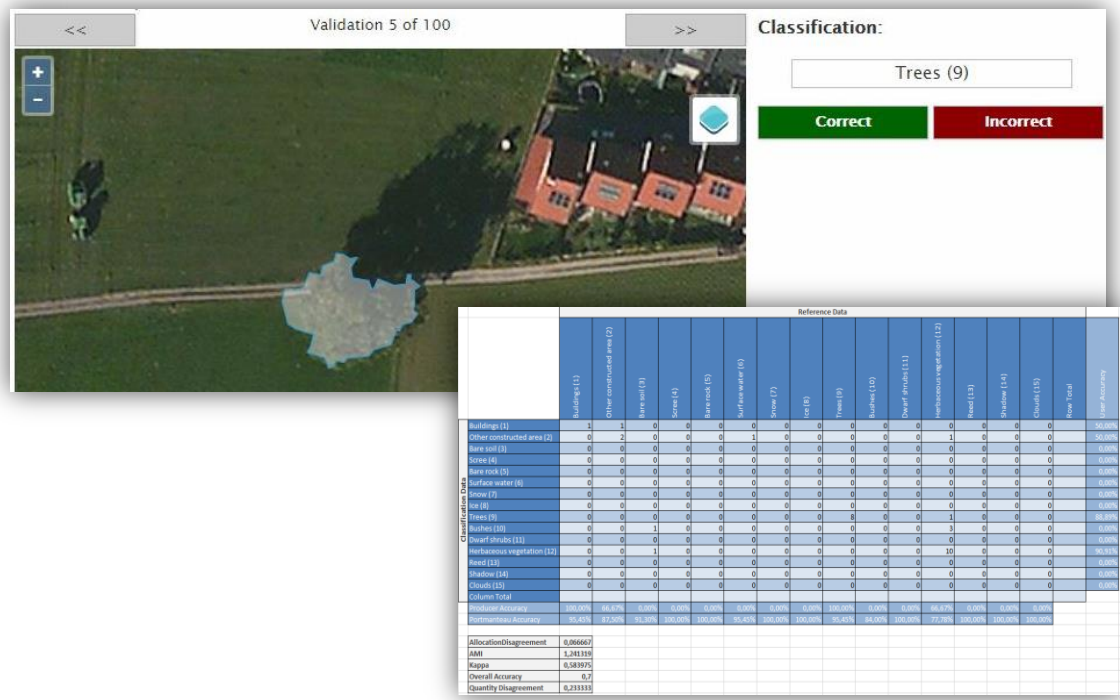
Logging in / Languages

Overview

- Upload
- Sampling
- Validation
- Reporting







» Fotoquest

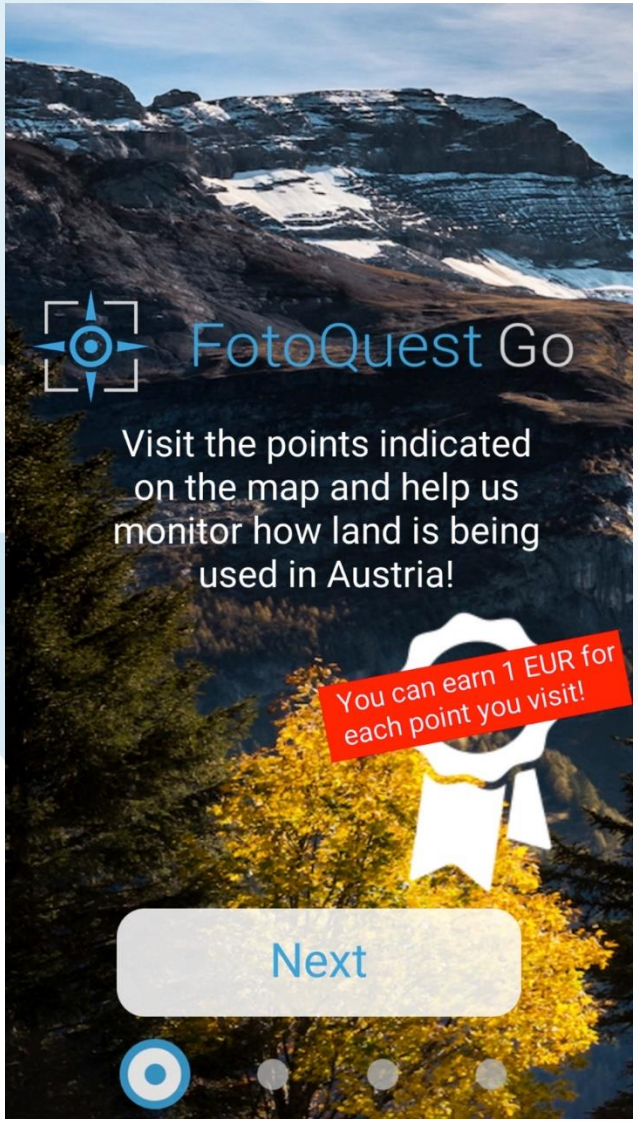
Table 6. Land cover main agreement (Ag) areas (sorted by percentage covered in FotoQuest Austria) between the two systems. Number of observations (n) is shown.

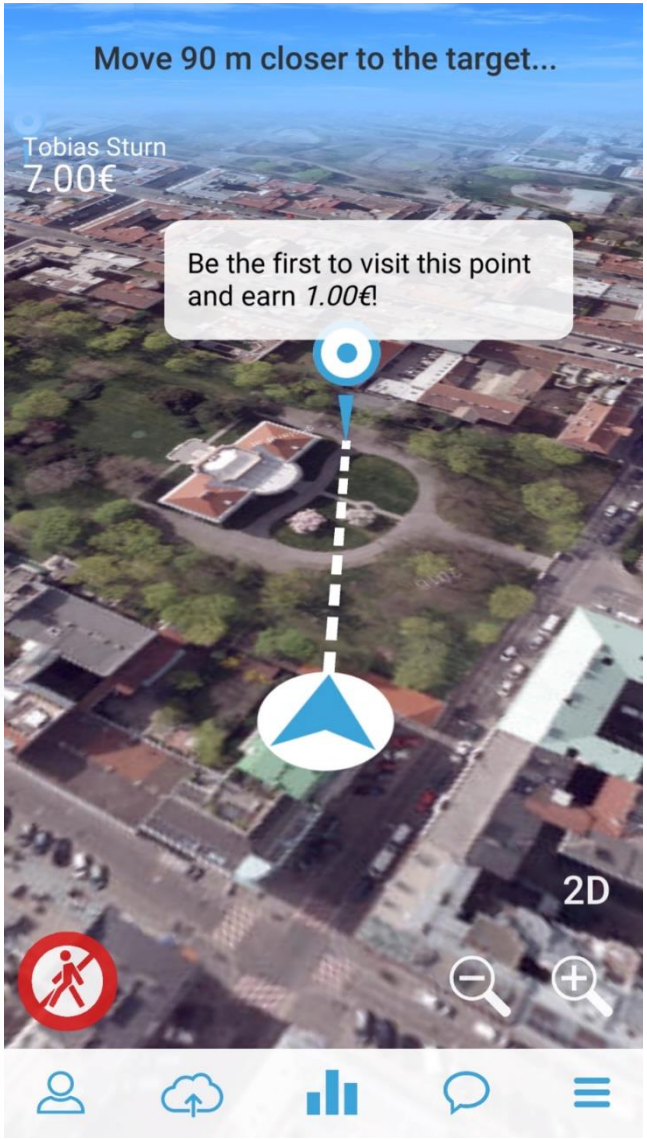
Type	Coverage in FotoQuest Austria (%)	Level 1		Level 2		Level 3	
		n	Ag (%)	n	Ag (%)	n	Ag (%)
Grassland	29	143	62	138	33	99	0
Cropland	22	111	89	100	51	78	50
Artificial Land	22	110	90	109	39	100	21
Woodland	18	90	60	87	29	67	19
Others	9	43	0–76	43	0–76	29	0

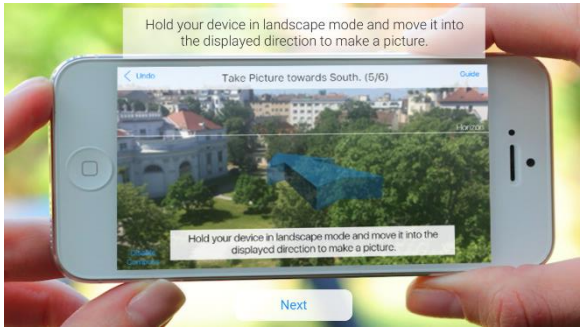
Crop Type at Level 3, Cropland	*n*	Agreement (%)
Maize	32	81
Common Wheat	5	80
Clovers	3	33
Barley	7	14
Vineyards	4	1
Soya	11	0
Other root crops	4	0
Others	12	0-1

FotoQuest Go 2017

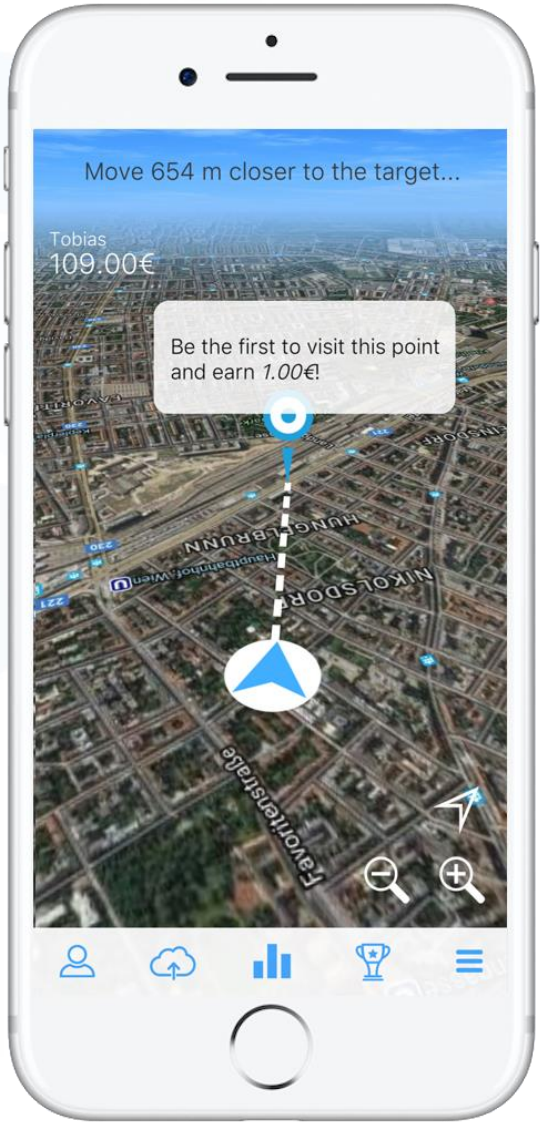
FotoQuestGo





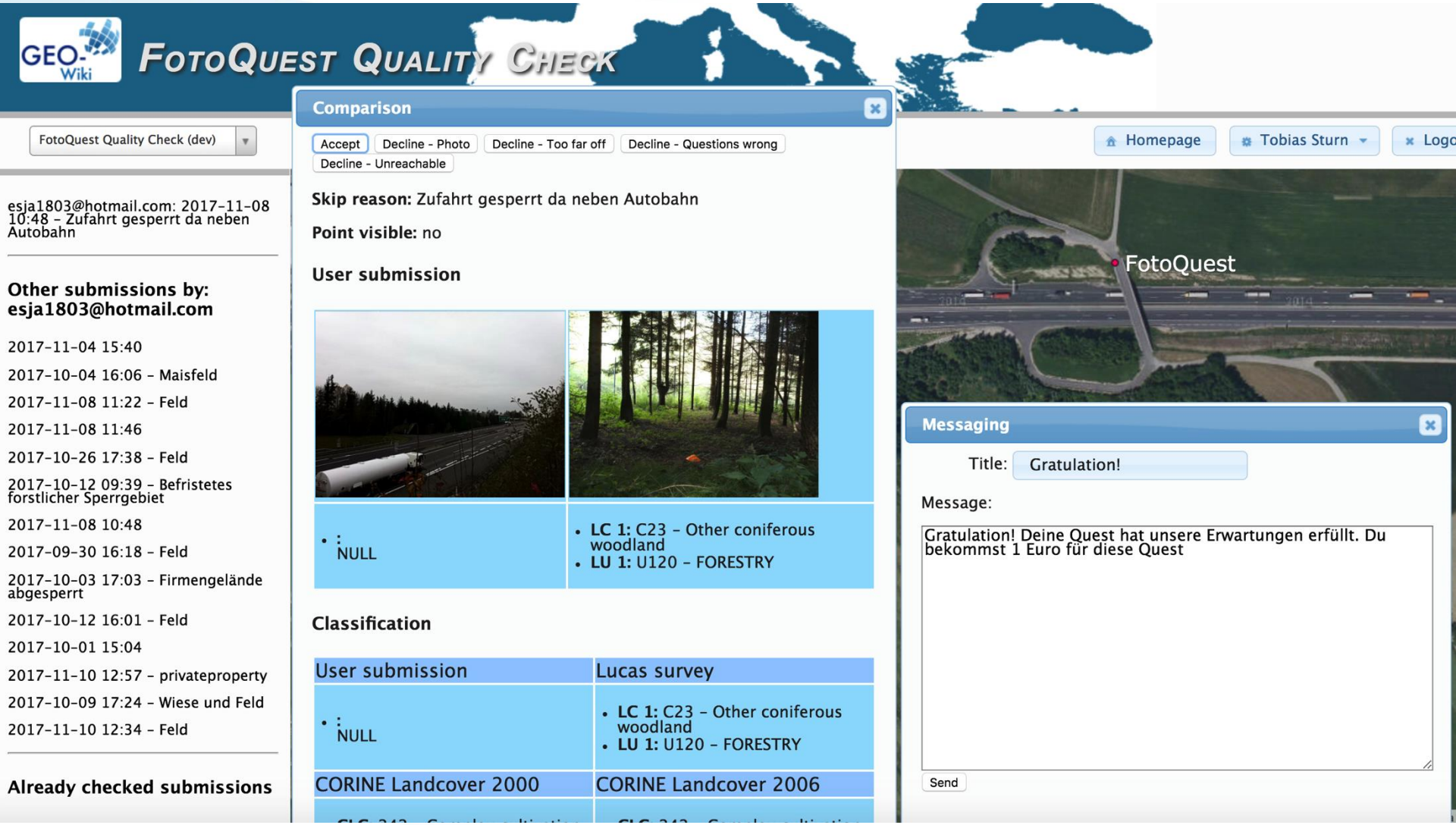


2. Try to get as close to the point as possible



3. When you are at the point take pictures and answer some questions on land cover and land use

FotoQuest Go Quality Assurance



One example of a FotoQuest Go user being closer to the target point.
Lucas
FotoQuest Target

FotoQuest Go statistics

12 weeks

July, 2015 — September, 2015

200+
Players

2000+
Quests

12,000+
Photos

12%
Quests completed

total

July, 2015 — September, 2016

300+
Players

4100+
Quests

22,000+
Photos

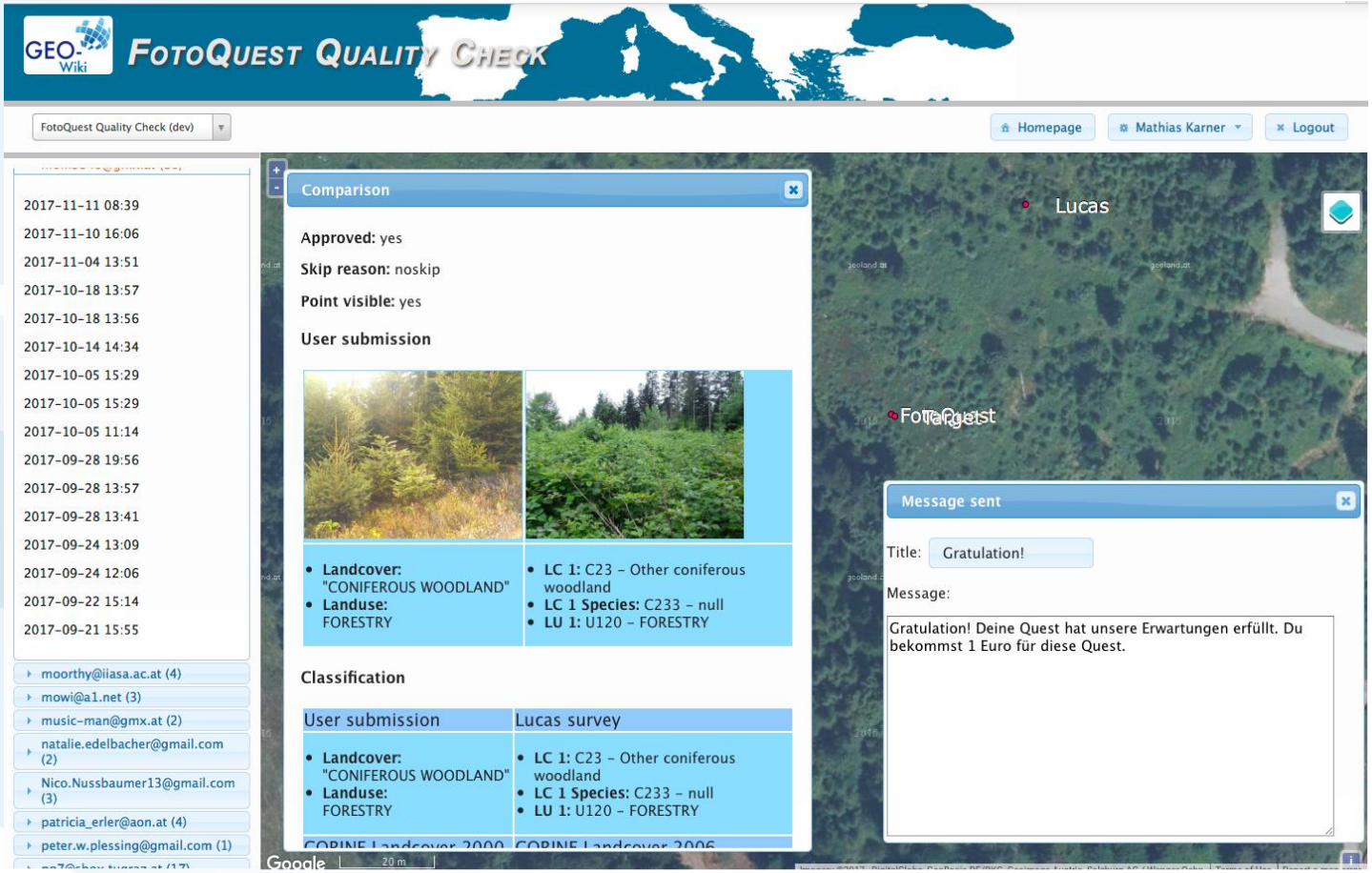
25%
Quests completed

FotoQuest Go Quality Check

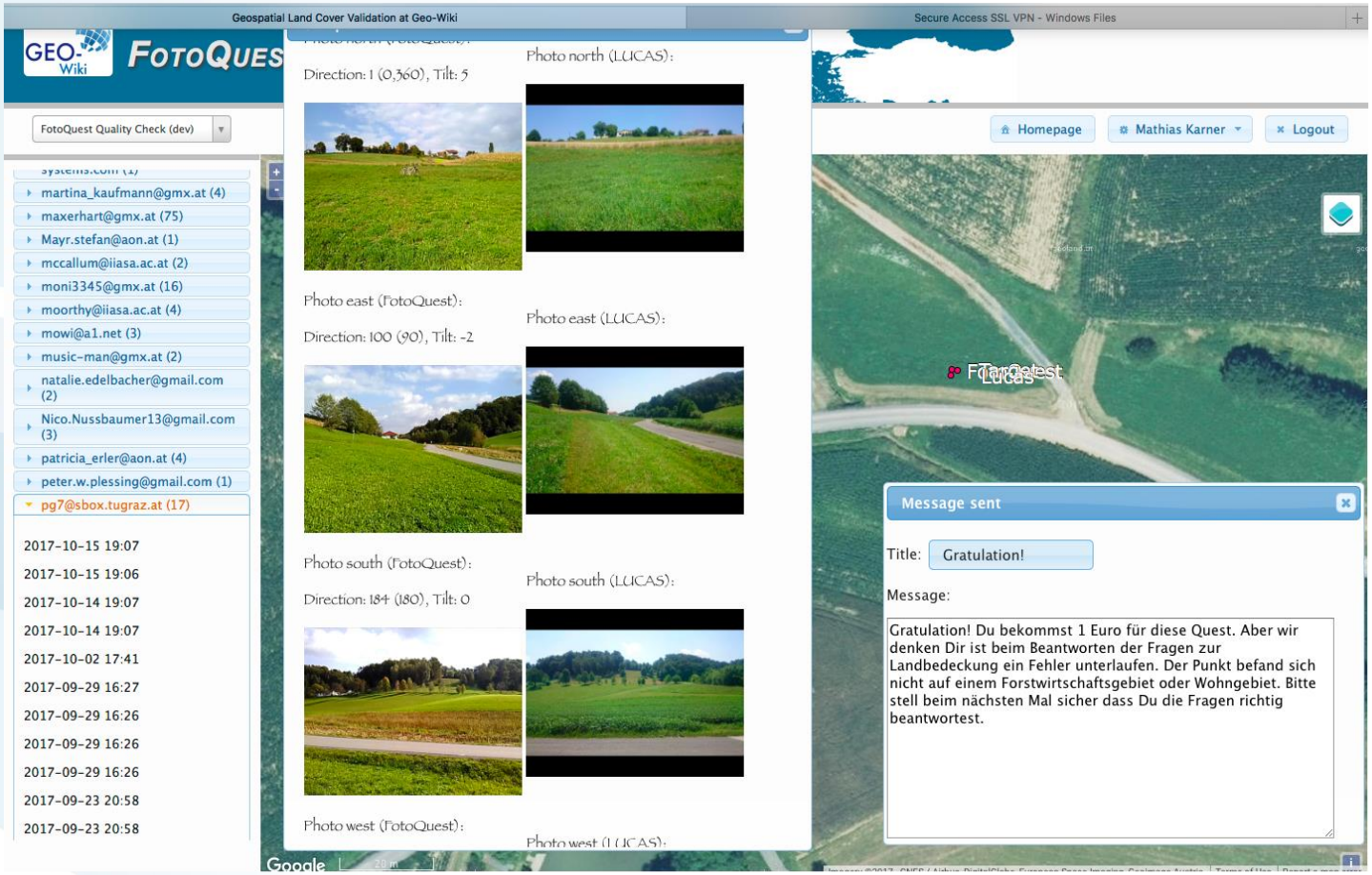
- First 1 Euro locked
- Every submission needs to be approved
- Users get feedback on where to improve
- Feedback via app and email
- We get a better idea of the causes of error

- Examples:

FotoQuest directly on the point, LUCAS surveyor is far off

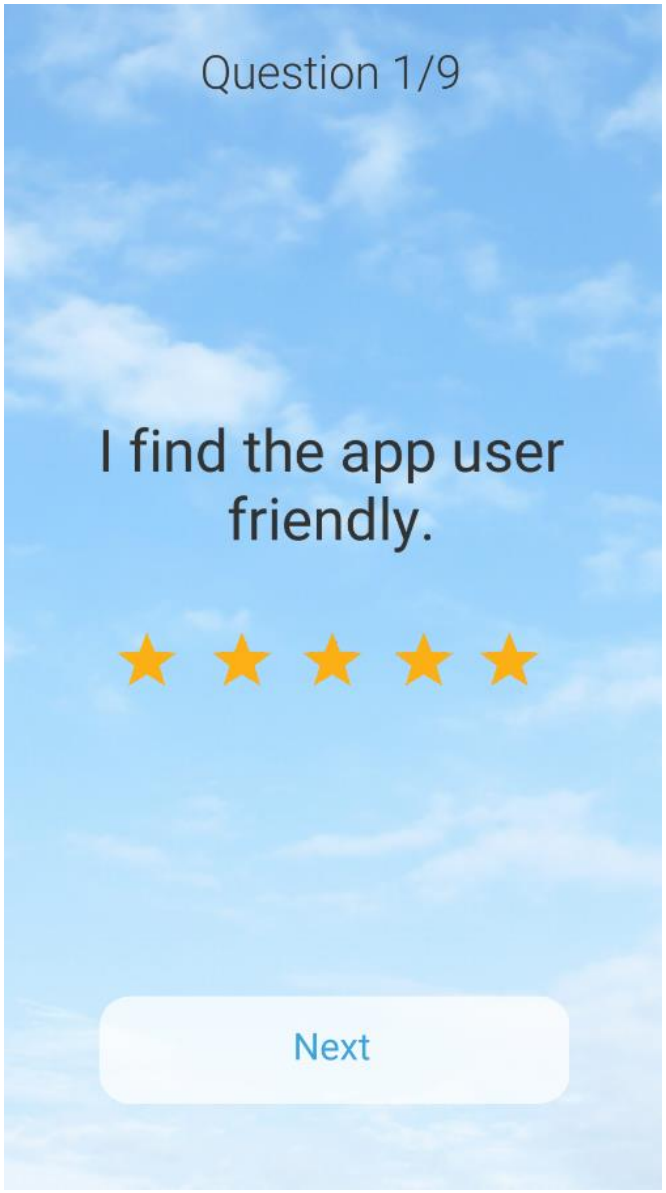


Well comparable pictures to LUCAS



FotoQuest Go Questionnaire

- 60 users participated in the questionnaire
- 8 questions
- 1-5 stars



FotoQuest Go Questionnaire

- I find the app user friendly: **4.1**
- Using this app, I am happy to contribute to scientific research: **4.7**
- Using this app I can discover new landscapes: **4.3**
- I have fun while using the app: **4.2**
- I have a strong interest in nature: **4.5**
- I find this project interesting: **4.6**
- I enjoy being in the outdoors: **4.6**
- I am excited by the possibility of winning a prize: **4.1**

FotoQuestGo

www.fotoquest-go.org

Available on the App Store

Get it on Google play