



FME & Amazon

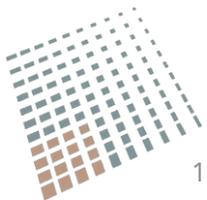
Inser SA

D. Reksten, E. Sauthier

Mai 2019, FME World Tour,
Fribourg

Agenda

- AWS Lambda
- AWS S3
- AWS Rekognition



AWS Lambda: Exécutez du code sans effort

Cas de figure

GEOPOL / FME Cloud → Librairie spécifique Python

Limitations techniques imposées

- Volonté de rester au plus proche de l'installation originale FME Cloud
- Librairie avec beaucoup de dépendances (trop gros)

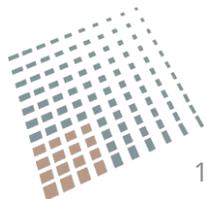
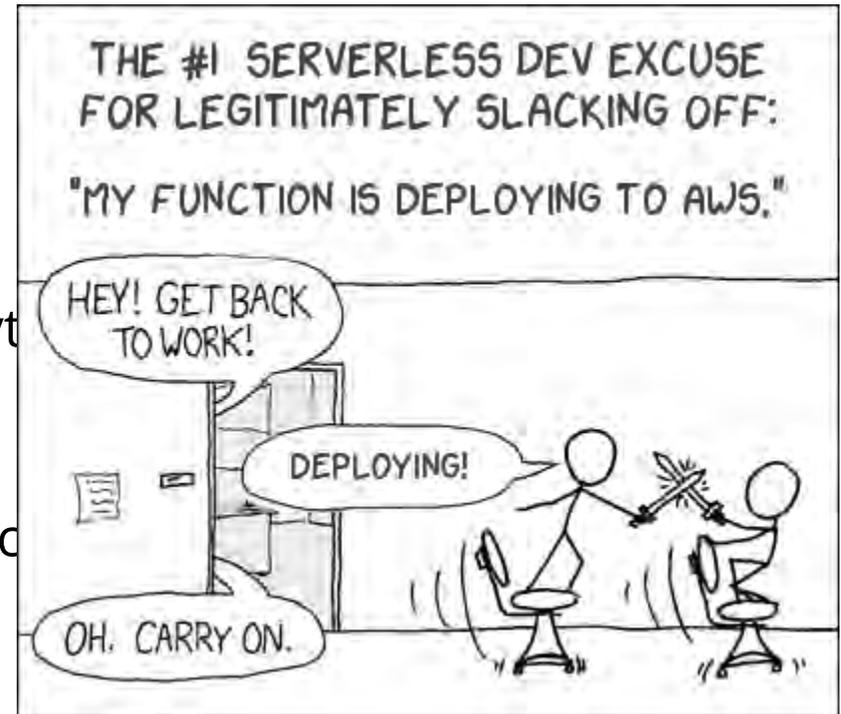
AWS Lambda: Exécutez du code sans effort

Solution:

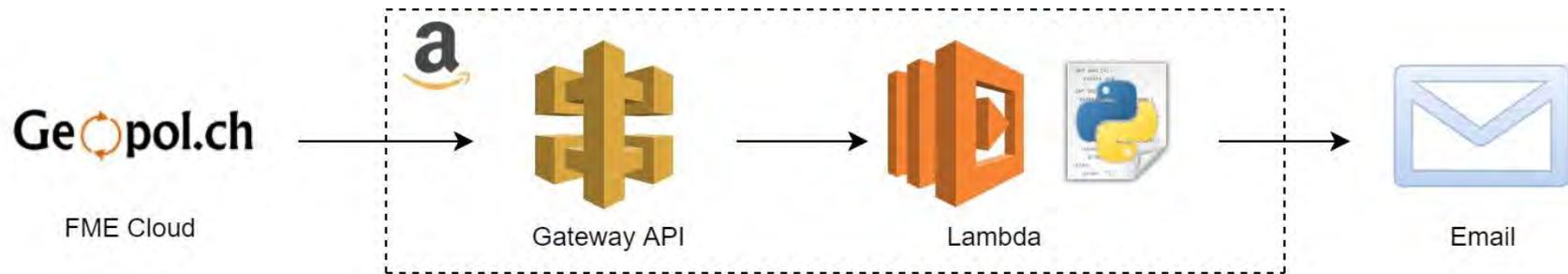
- Service AWS Lambda
- Utilisation sans administration
- Trigger

Avantages:

- Pas de problème d'installation pyth
Sur GEOPOL
- Pas de souci de maintenance mac
- Pas de problème de taille, puissance car élastique



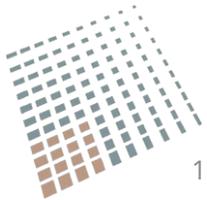
AWS Lambda: Exécutez du code sans effort



Amazon API Gateway
Create, publish, maintain, monitor, and secure APIs at any scale



AWS Lambda
Lambda runs your code only when triggered, using only the compute resources needed



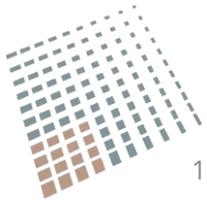
AWS Lambda: Exécutez du code sans effort

Cas de figure

GEOPOL / FME Cloud -> Trigger de workspace selon service externe

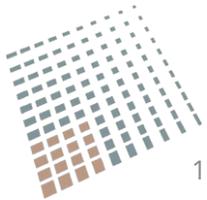
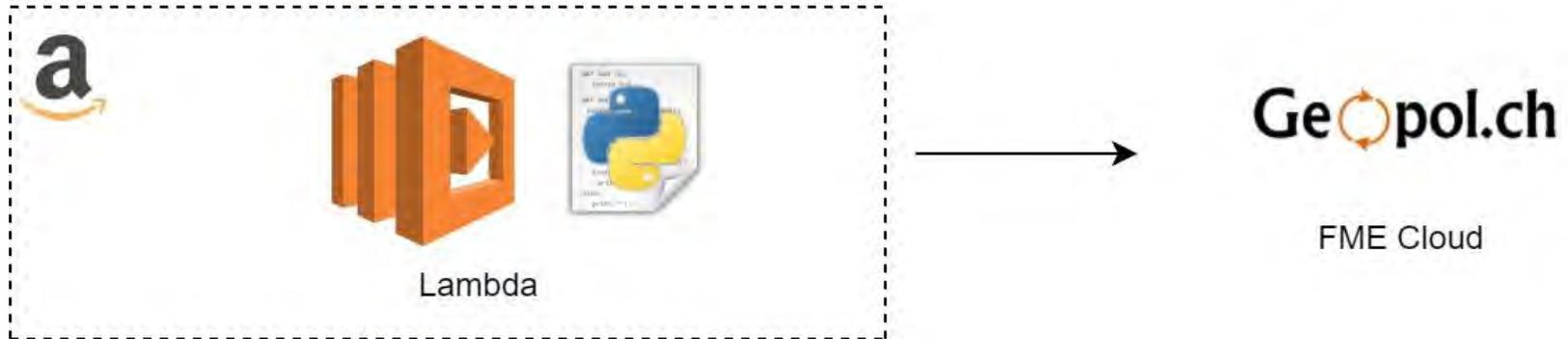
Limitations techniques imposées

- Utilisation d'un engine pour checker

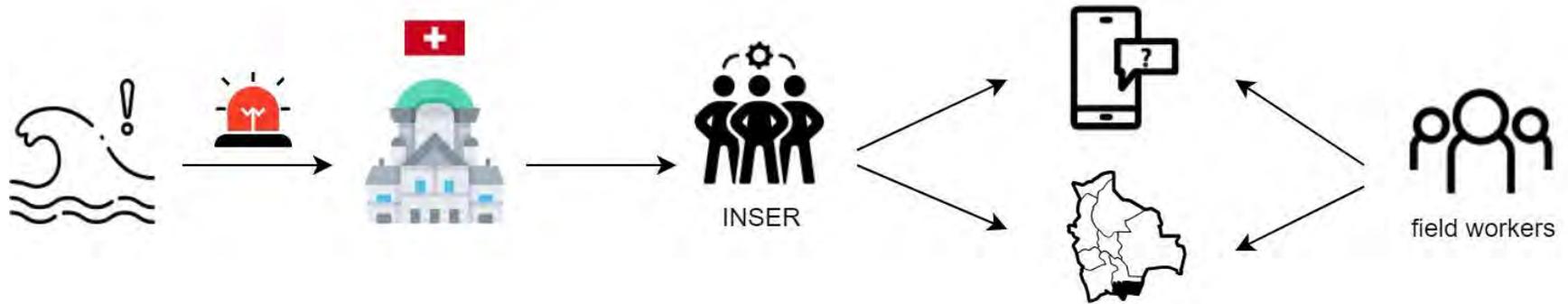


AWS Lambda: Exécutez du code sans effort

Cas 2



AWS S3: Partagez des données facilement

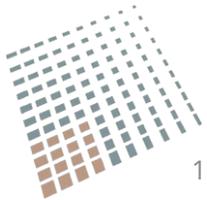
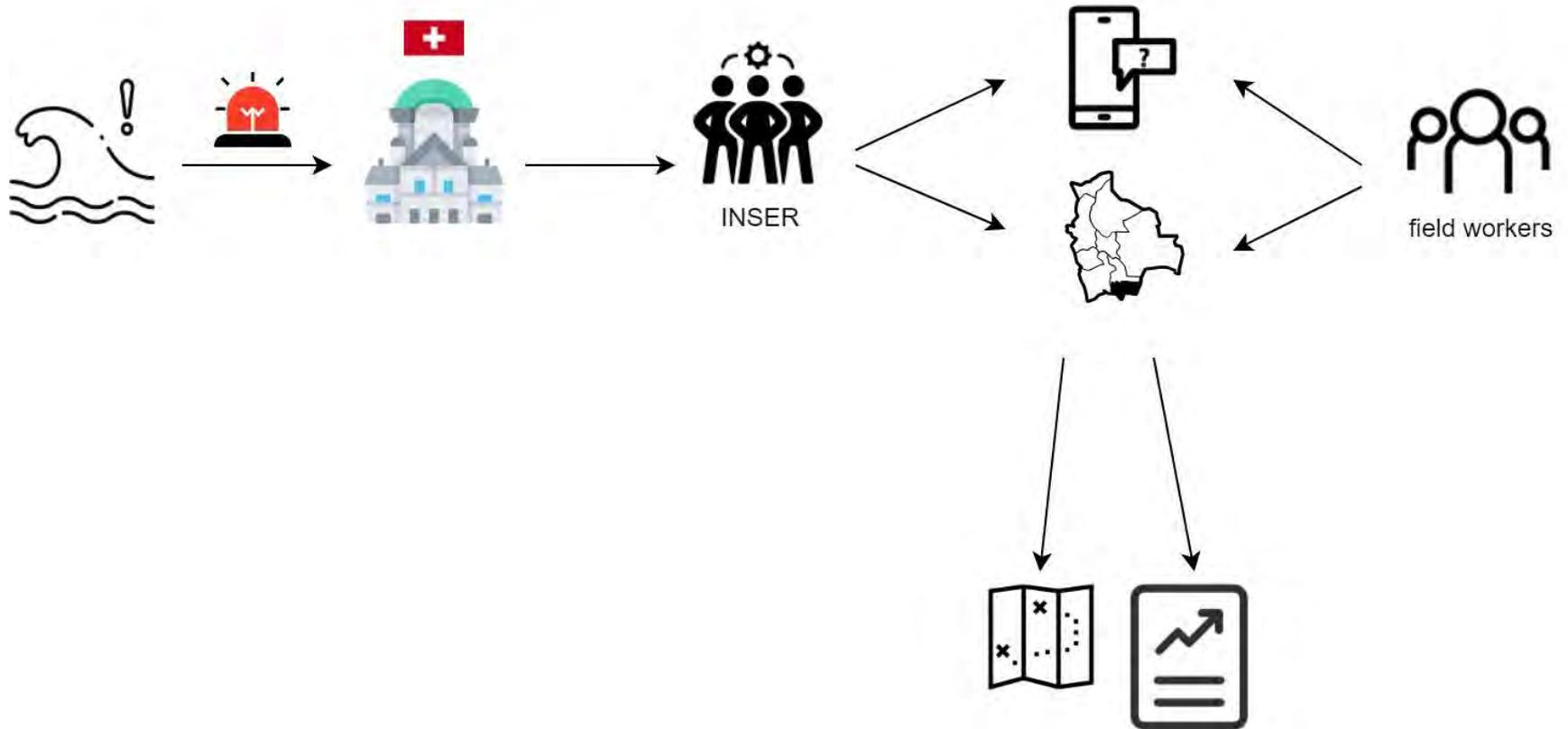


Cas de figure:

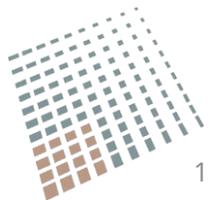
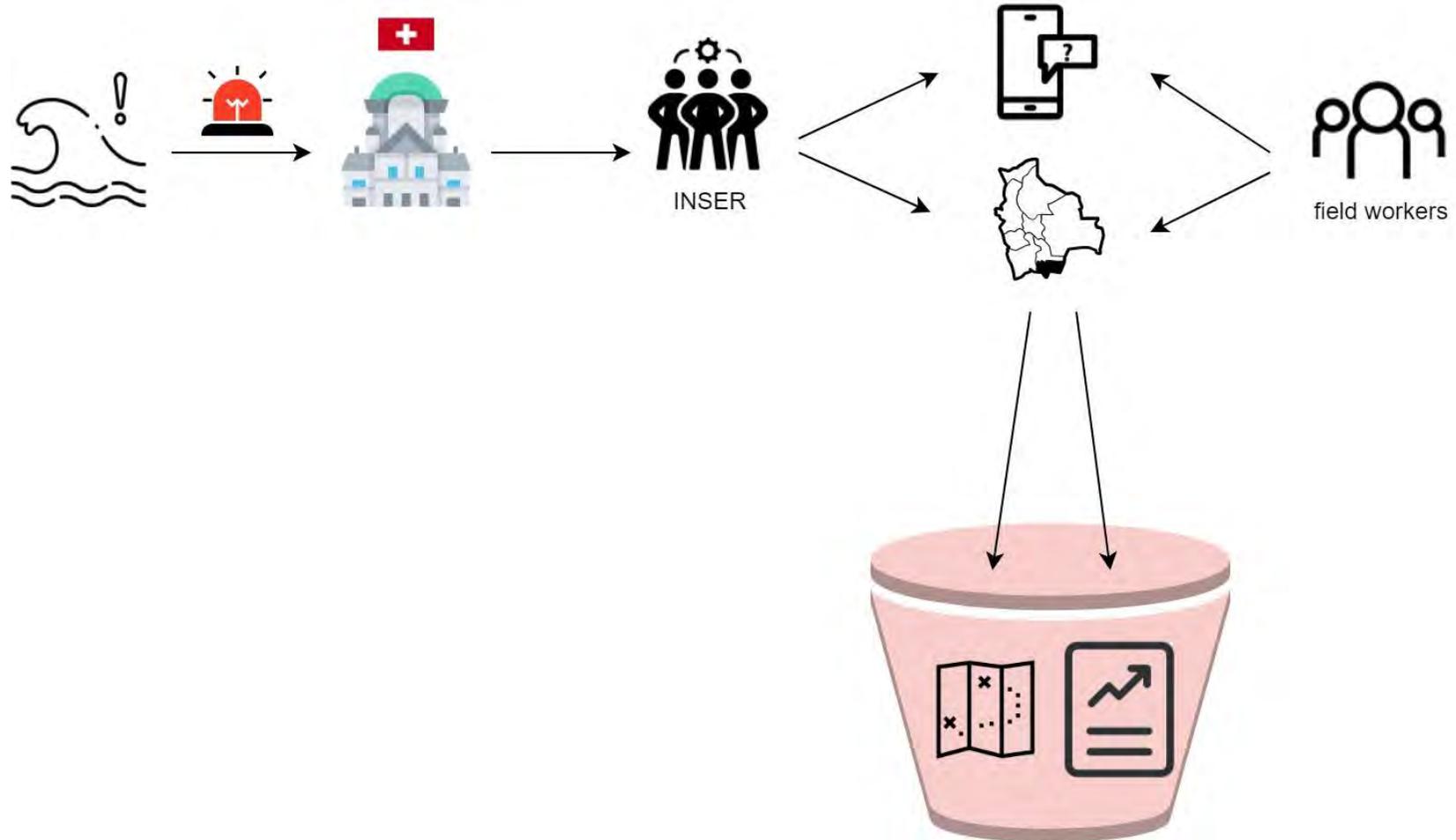
Partager des données au client rapidement, sans effort, automatiquement et de manière récurrente.



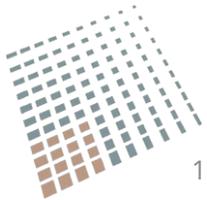
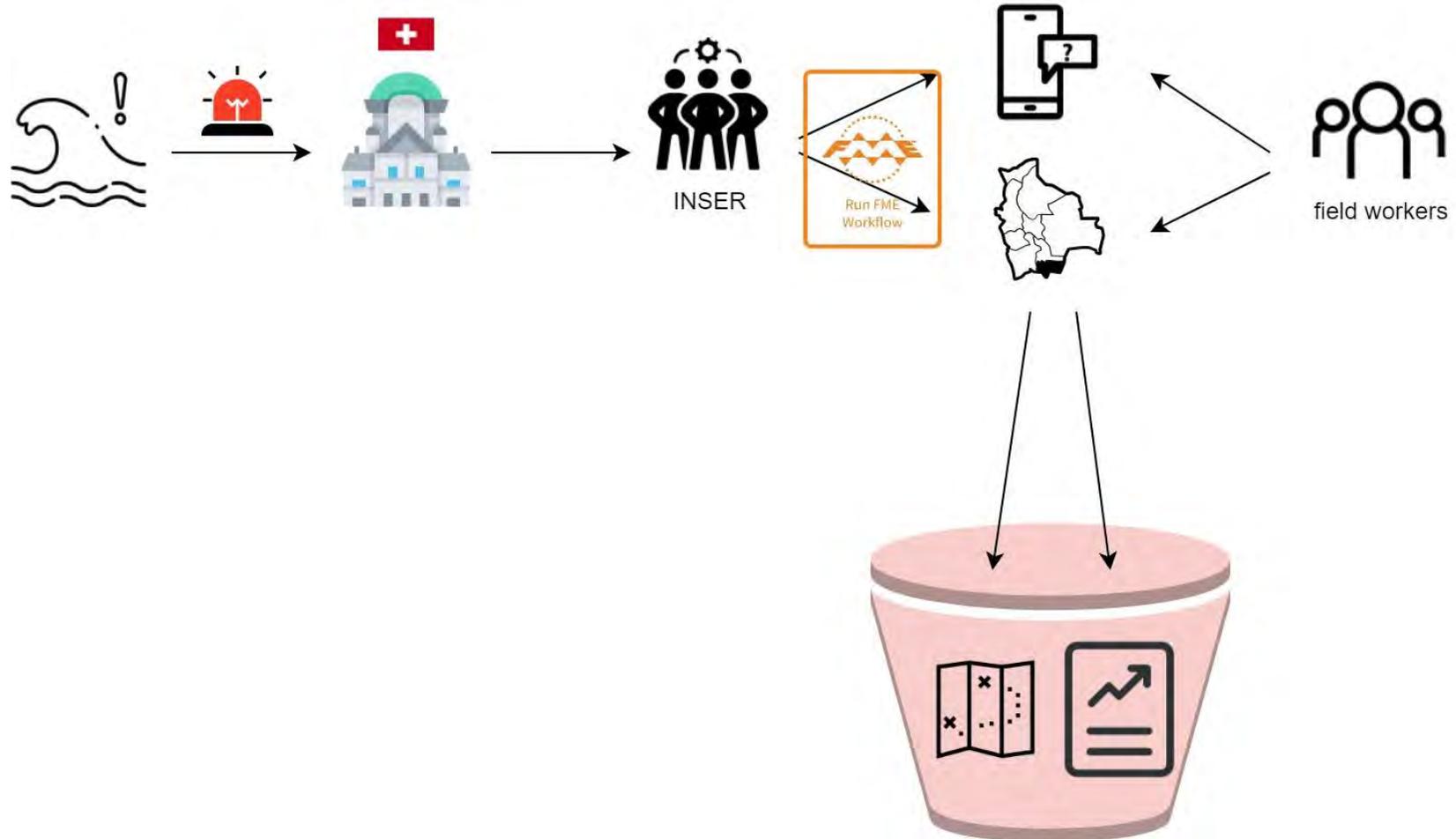
AWS S3: Partagez des données facilement



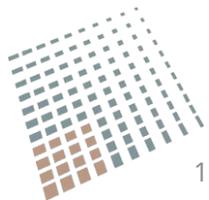
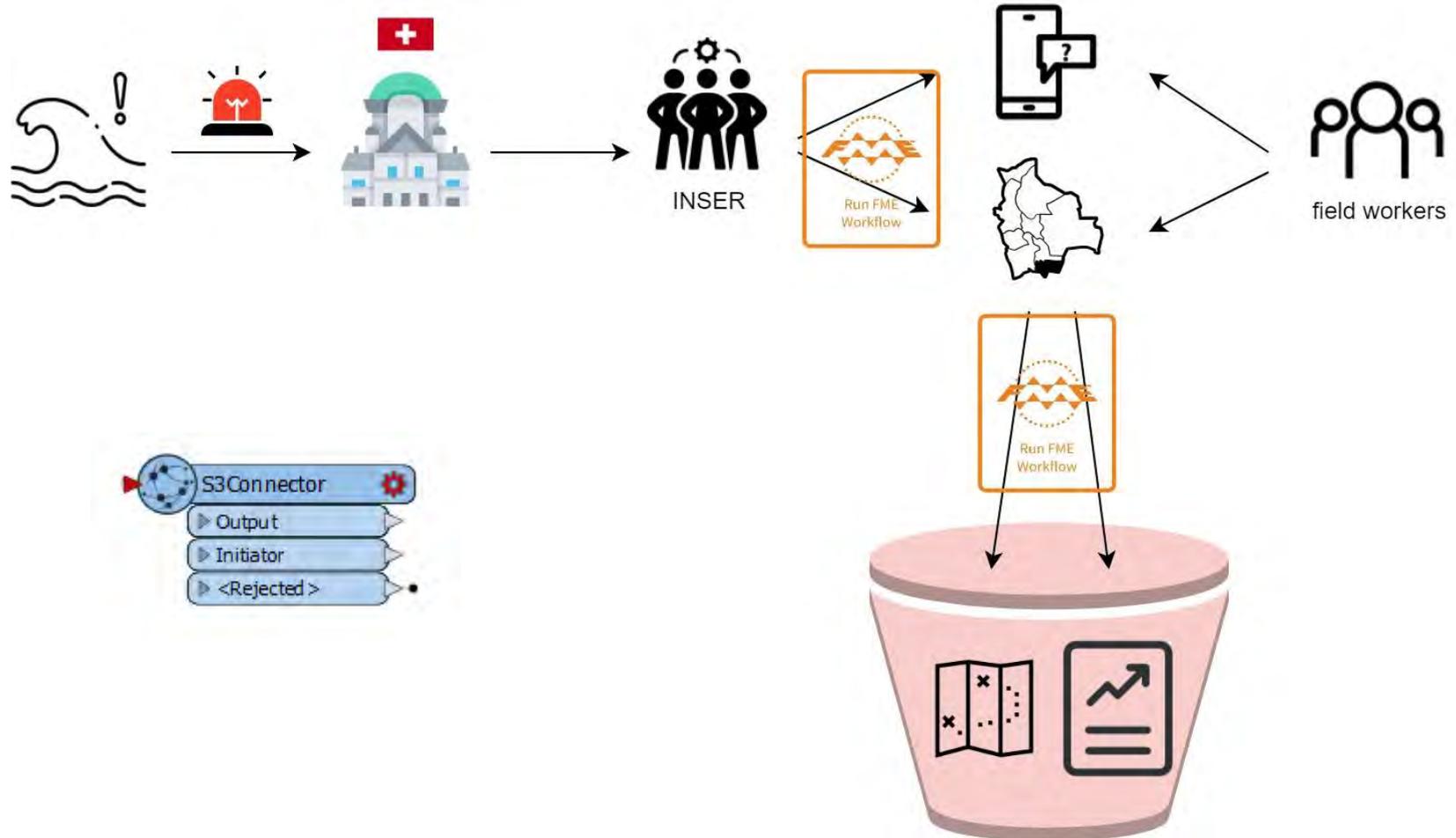
AWS S3: Partagez des données facilement



AWS S3: Partagez des données facilement



AWS S3: Partagez des données facilement



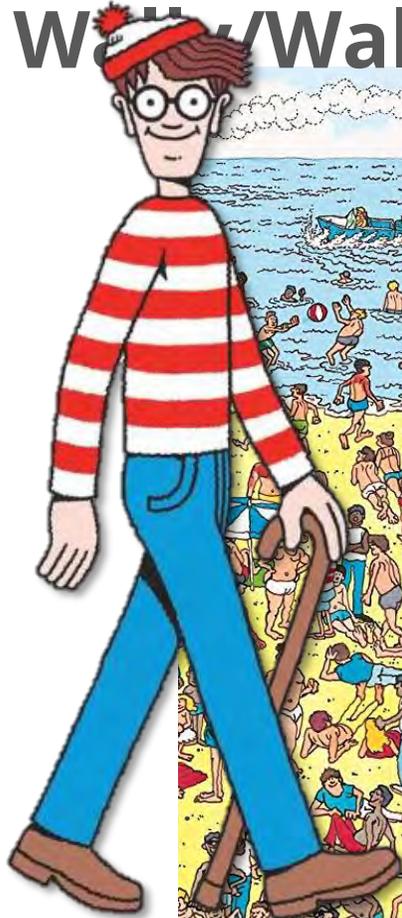
AWS S3: Partagez des données facilement

Amazon S3 Explorer (v2 alpha) deza-picture + i ↺ ⚙ 326

Show 25 entries Search:

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Où est Charlie? Wo ist Walter? Where's Wally/Waldo?



Comment trouver quelqu'un parmi des milliers de photos de gros



Amazon Rekognition

Deep learning-based image recognition service
Search, verify, and organize millions of images



Object and Scene
Detection



Facial
Analysis

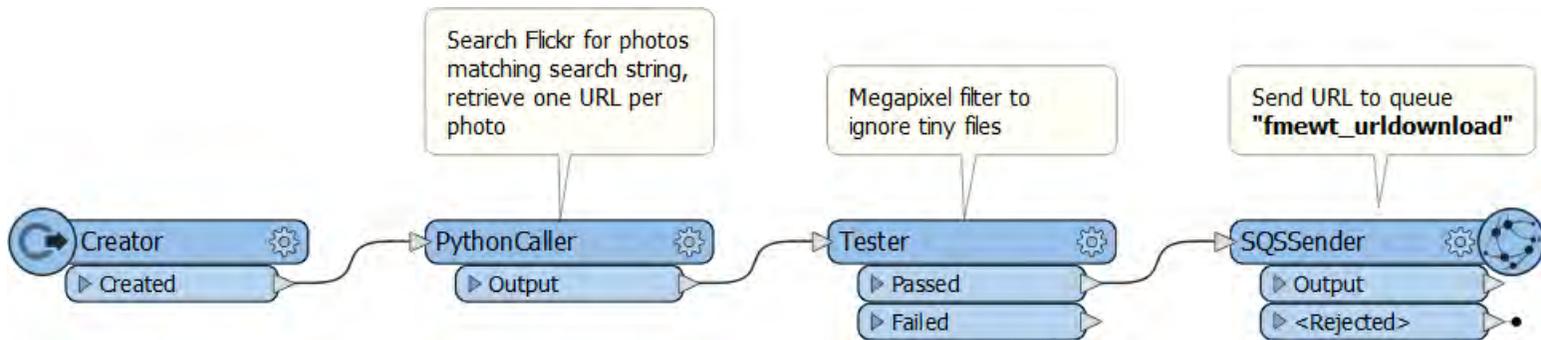


Face
Comparison



Facial
Recognition

Préparer un jeu de données



```
for photo in flickr.walk(text=FME_MacroValues['FLICKR_SEARCH']):
    resp = flickr.photos.getSizes(photo_id=photo.get('id'))
    for size in resp[0]:
        if size.get('label') == 'Original':
            new_feature = feature.clone()
            new_feature.setAttribute('flickr_url', size.get('source'))
            self.pyoutput(new_feature)
```

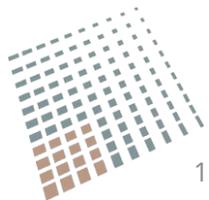
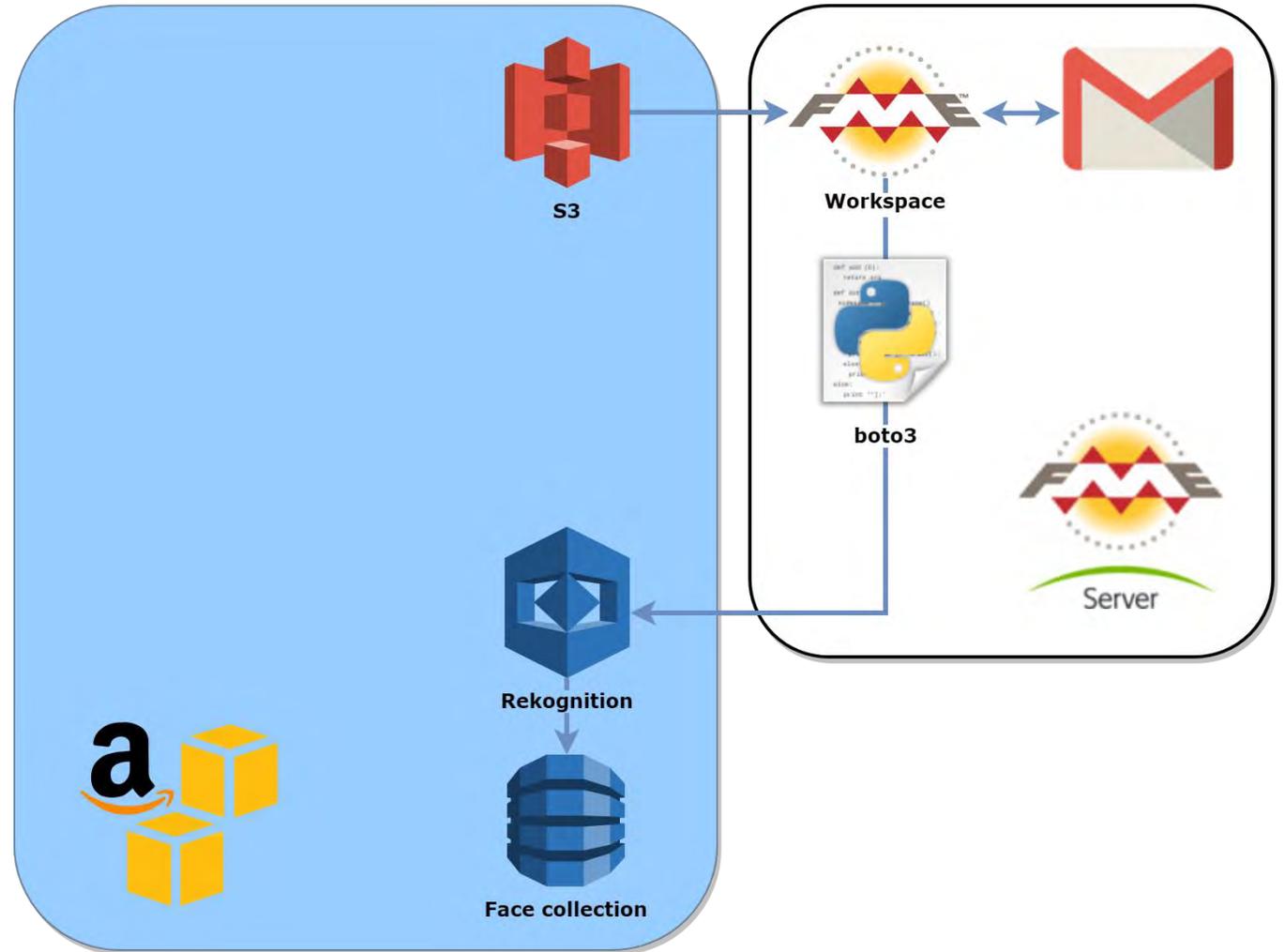
Analyser le contenu de l'image



Demo

- Prendre un selfie
- Envoyer le selfie à Geopol
- Attendre 1-2 minutes
- Profit!

A la recherche de Charlie



En pratique

On a le temps pour rapidement regarder le workspace?

Pour cette démonstration

- 8'991 photos parcourues
- 55'043 visages analysés et indexés

AWS coûts: <\$10

Conclusion

Fun

Rapide

Bon marché

Mais c'est flippant,
quand-même!



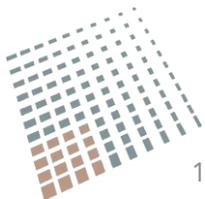
A vous de jouer!

Send your selfie to

fmewt@geopol.ch

Within 1-2 minutes you will receive one mail for each face match (max 10 mails), with your face highlighted in the photo.

Your photos will not be stored and are deleted from the AWS platform as soon as the results have been sent to you.



Merci pour votre attention

Des questions?

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- Eulalie Sauthier, es@inser.ch
- INSER SA, www.inser.ch

- [@insersa](#)

