**ground motion**
(relative to the satellite)

- away from $\lambda/2$
- towards

| 0 cm | A | B | C | D | E | (2.83 cm) |

pass 1

pass 2

$\lambda = 5.66 \text{ cm}$

field of view

initial ground surface

subsidied ground surface

phase difference

$\sim 50 \text{ km}$
InSAR results

From spatially distributed measurements...

To selection and smart projection on the pipeline network...

To data presentation at the address level...
Some expected future developments
Rapid vulnerability screening

• Rapid, cheap (but lower resolution) vulnerability screening as hazard awareness tool

• Sentinel-1 images
• full history of images
• Processing and storage in one place
• SkyGeo downloads, coregisters, stores and distributes the full Sentinel-1 database (>750TB)
From Very High to even higher resolution

- 4x20 m Envisat
- 3x3 m TSX StripMap
- 1x1 m TSX Spotlight
Third party activities

- Using same SAR data for change detection
- Detecting activities from municipalities, contractors, individuals etc near the pipelines every 2 weeks
Connecting with pipeline failure models

• STOOP3 project: 4M€ | 2015-2019
• Funded by all drinking water distribution companies, Stedin and Alliander