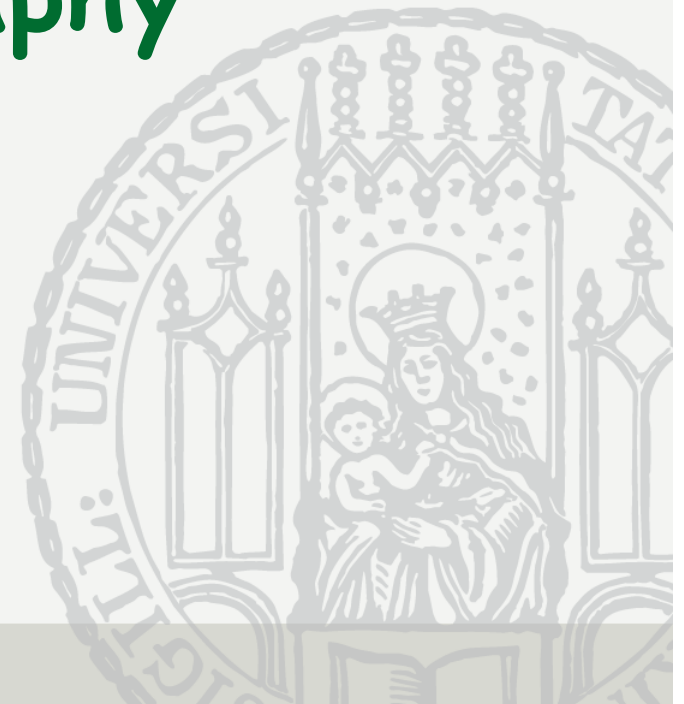


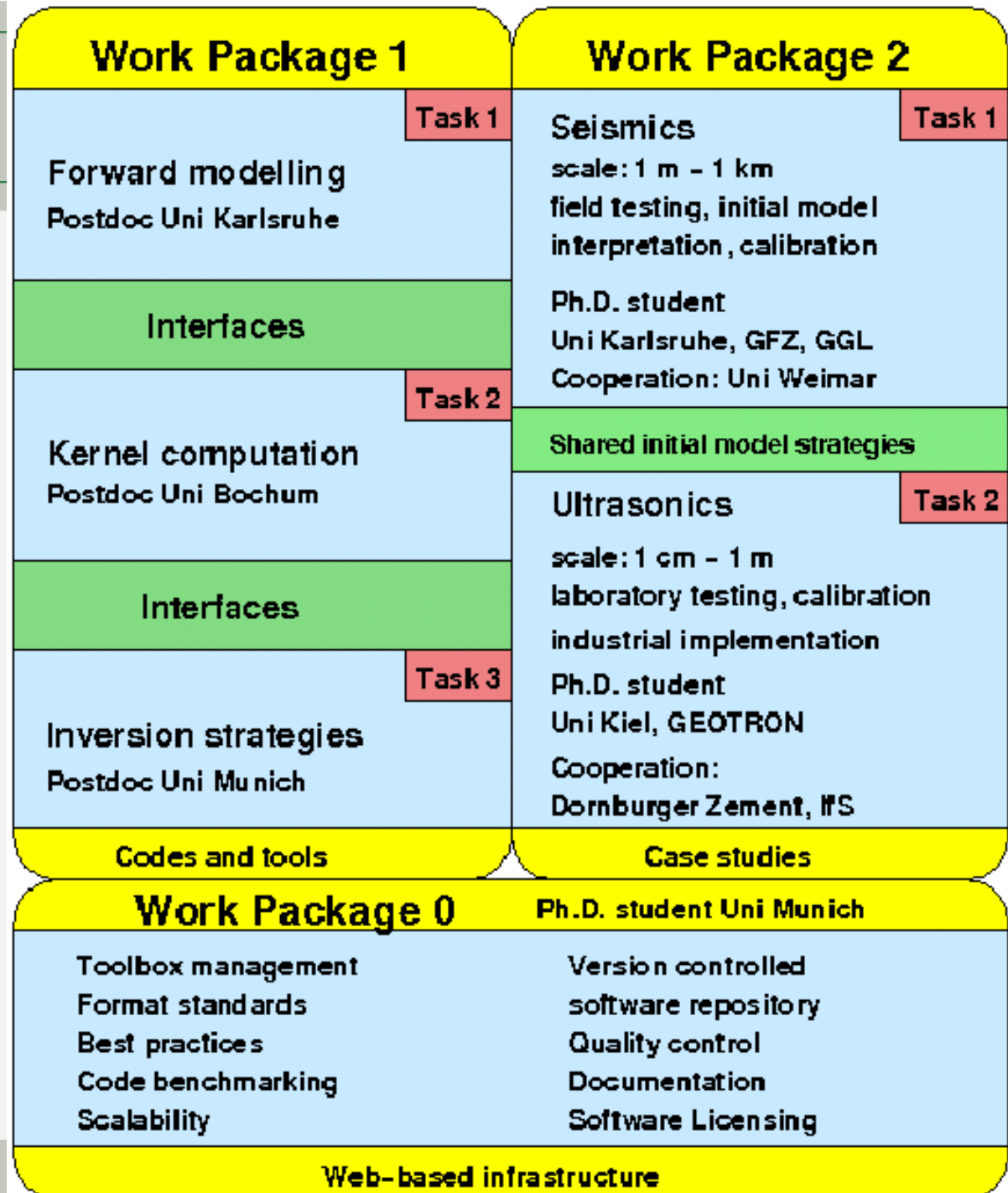
# TOAST

## TOolbox for Applied Seismic Tomography

**Ilaria Mosca**



# TOAST

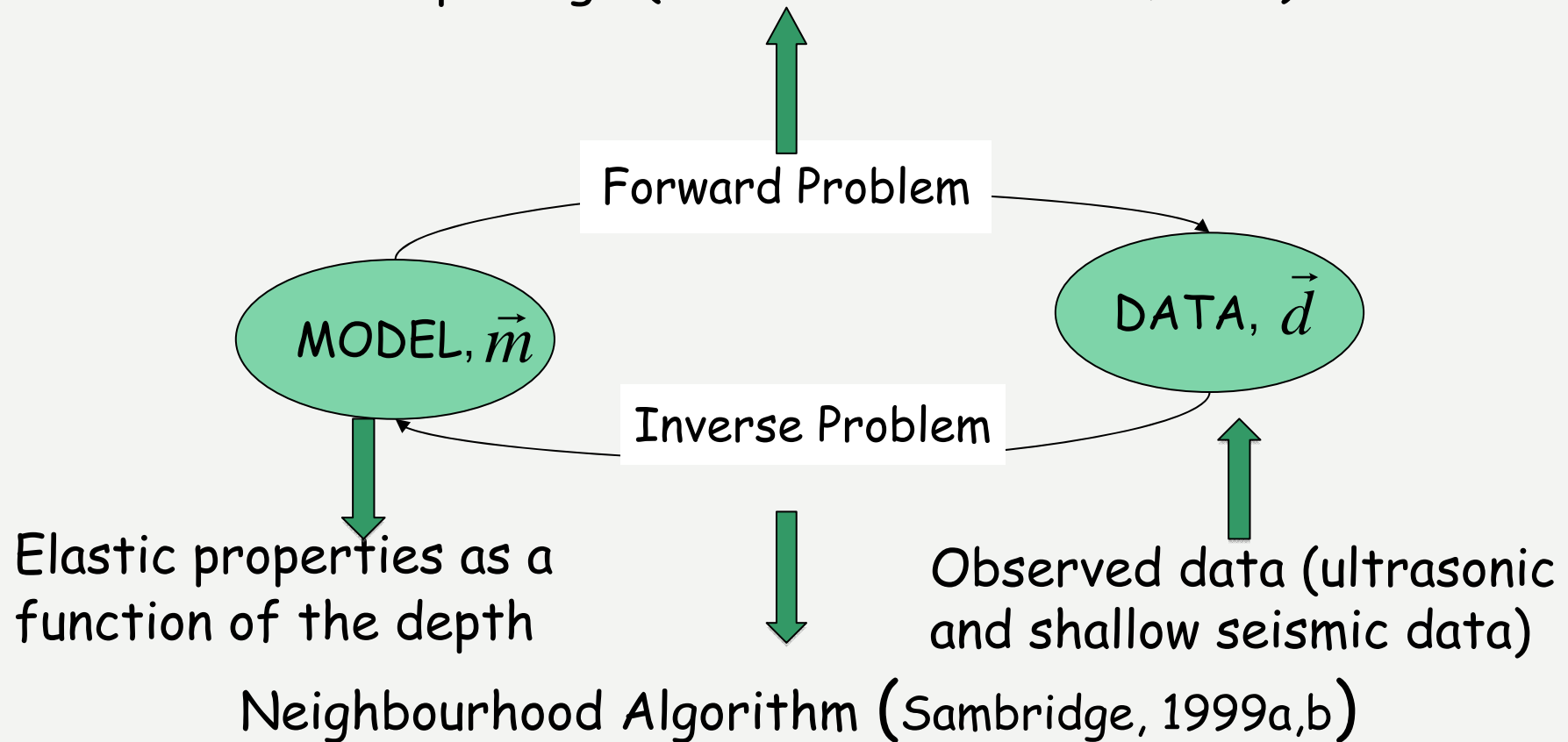


# Proposal vs. Reality of WP1

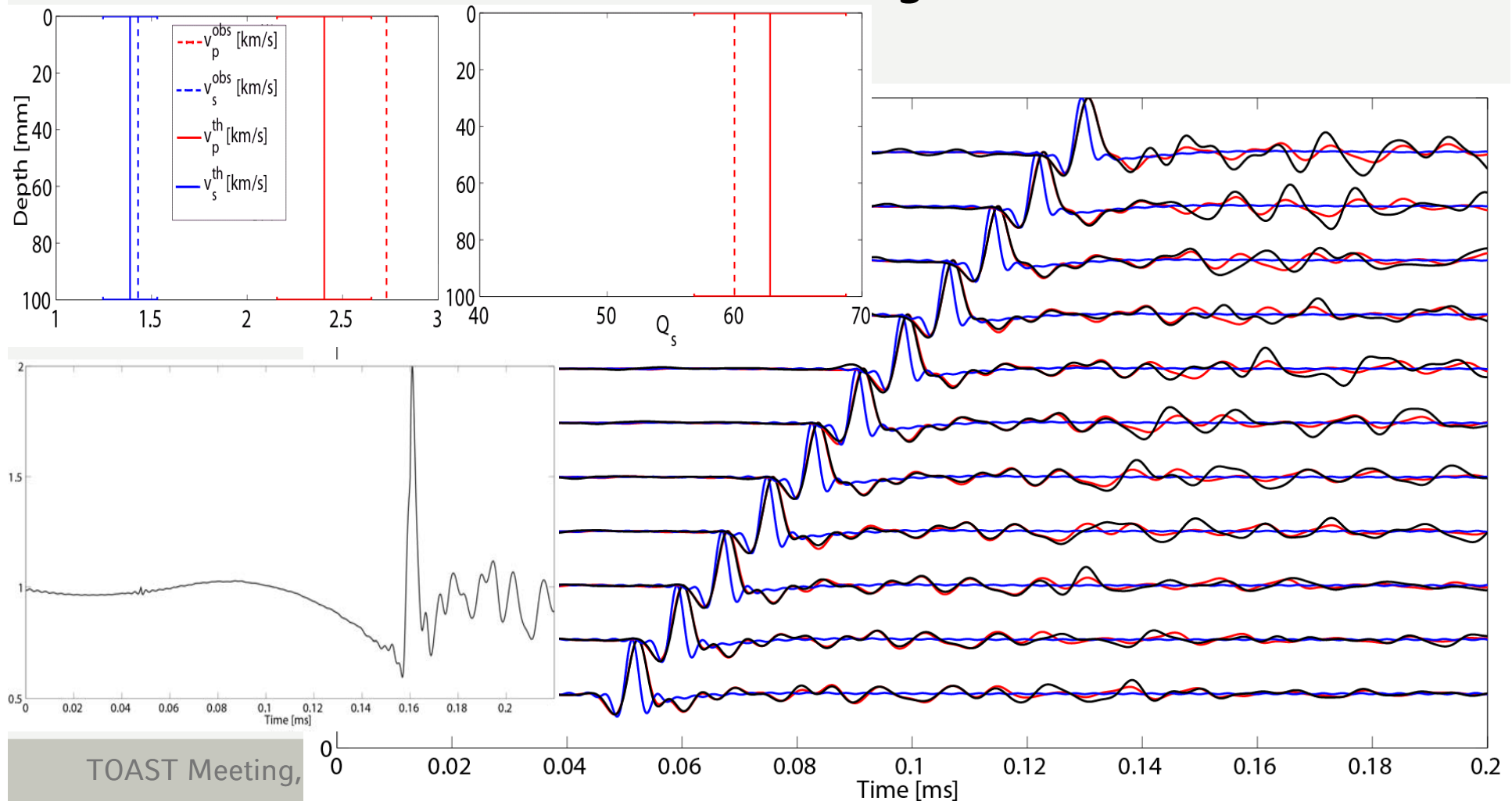
Task	1st year	2nd year	3rd year
<b>Work Package 1</b>			
Software selection and collection	done ✓		
Defintion of standards and design of interfaces	done ✓		
Writing of interface code	In progress ✓✗		
1D and 2D tomography modules	In progress ✓✗		
regularization and meshing modules	not started ✗		
2D and 3D tomography modules	In progress ✓✗		
Uncertainty modules, optimization and parallelization	not started ✗		
Documentation / engineering of modules	not started ✗		

# WP1 - Task 3: Inversion strategy

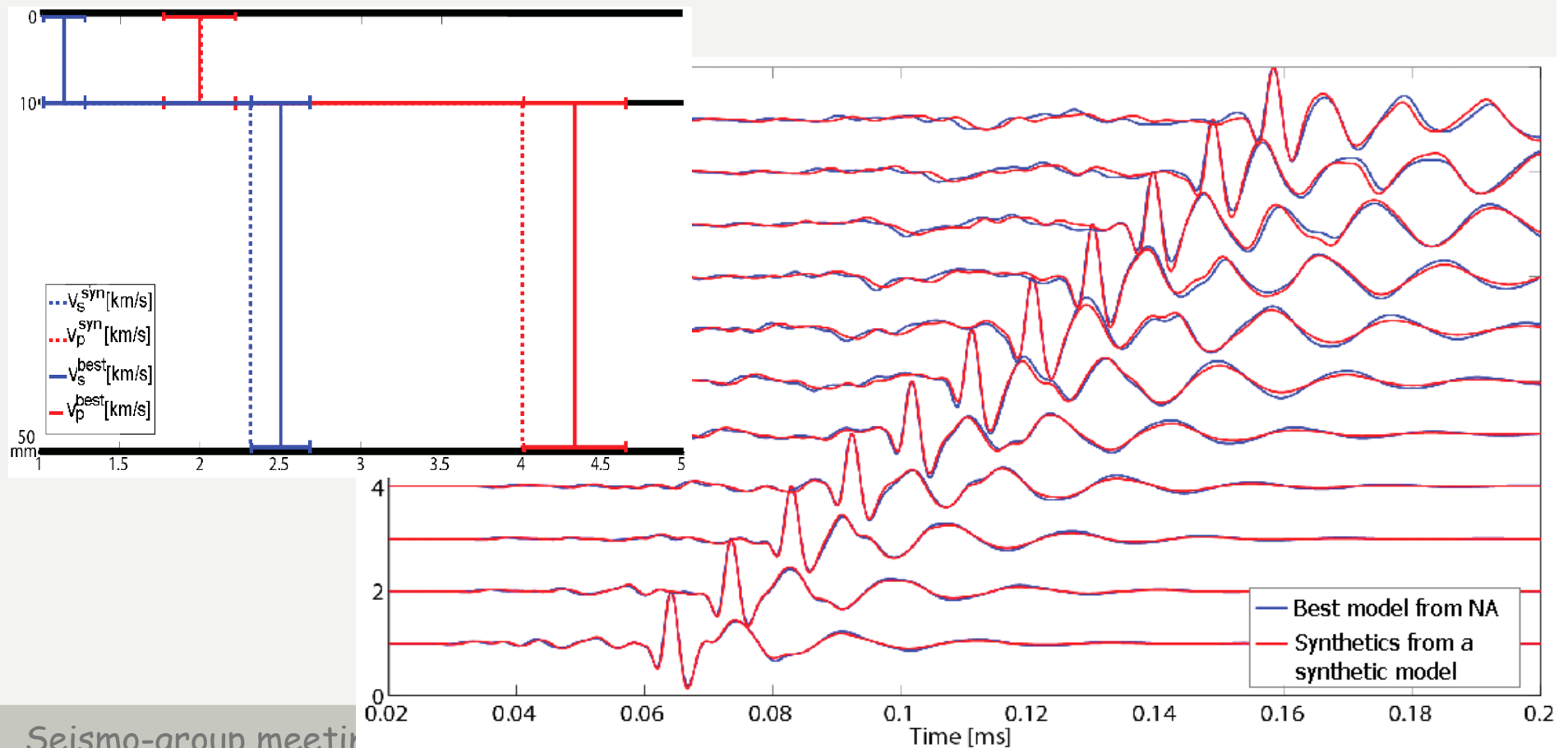
Gemini package (Friederich & Dalkolmo, 1995)



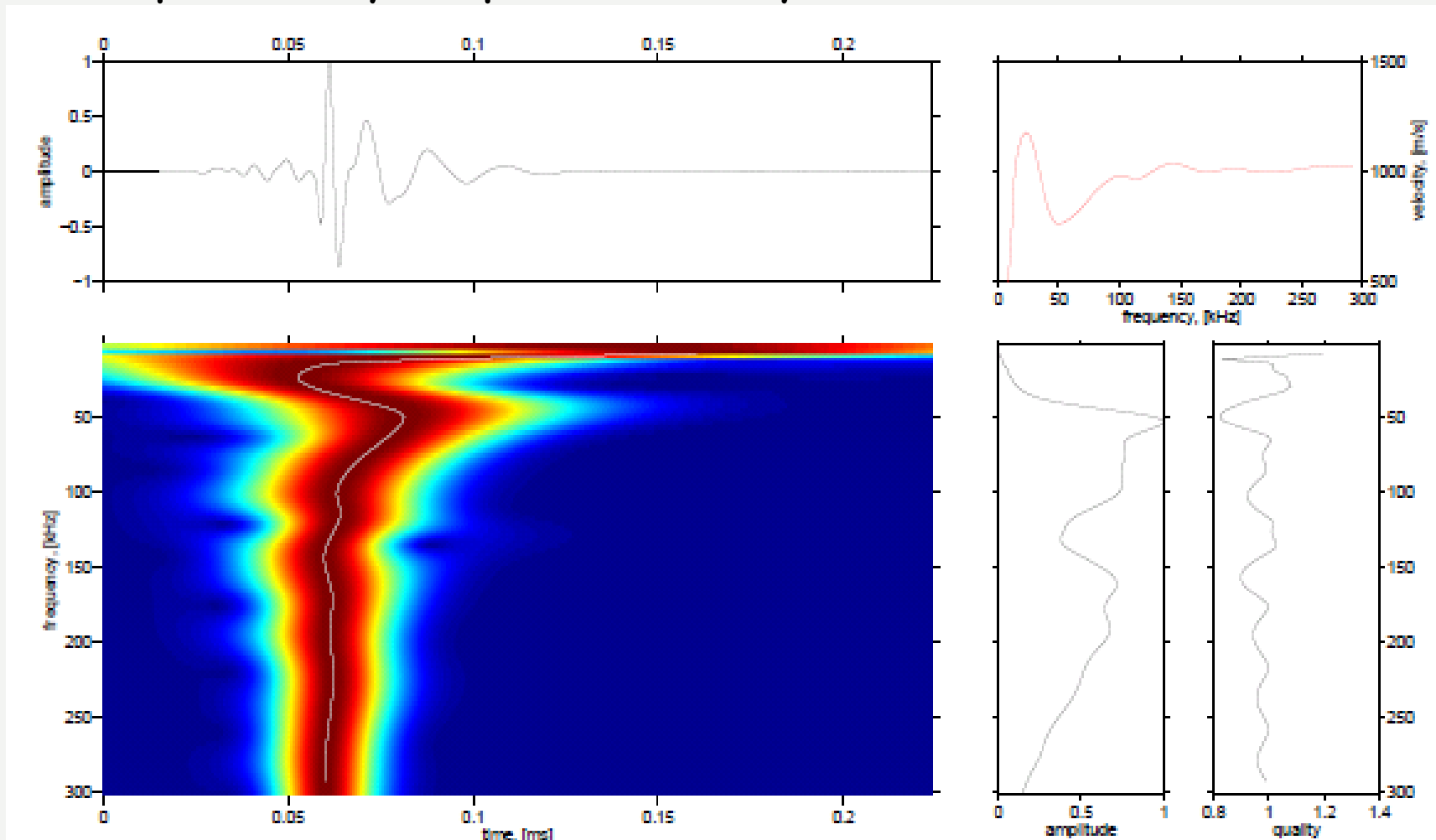
# $V_s$ and $Q_s$ inversion of ultrasonic surface wave measurements recorded for a Plexiglas block.



# Study of the ultrasonic surface-wave propagation through synthetic layered structures.



# Group velocity dispersion analysis of the 1st trace.



## Next steps of WP1-Task 3:

- Inversion of ultrasonic measurements for (un)weathered samples as well as the shallow seismic datasets.
- Phase velocity dispersion analysis for synthetic structures.
- Misfit function in terms of phase velocity.

## Next steps of WP1:

- First version of the toolbox to interchange modules and interfaces.
- Benchmark testing of inversion strategies