

proceq

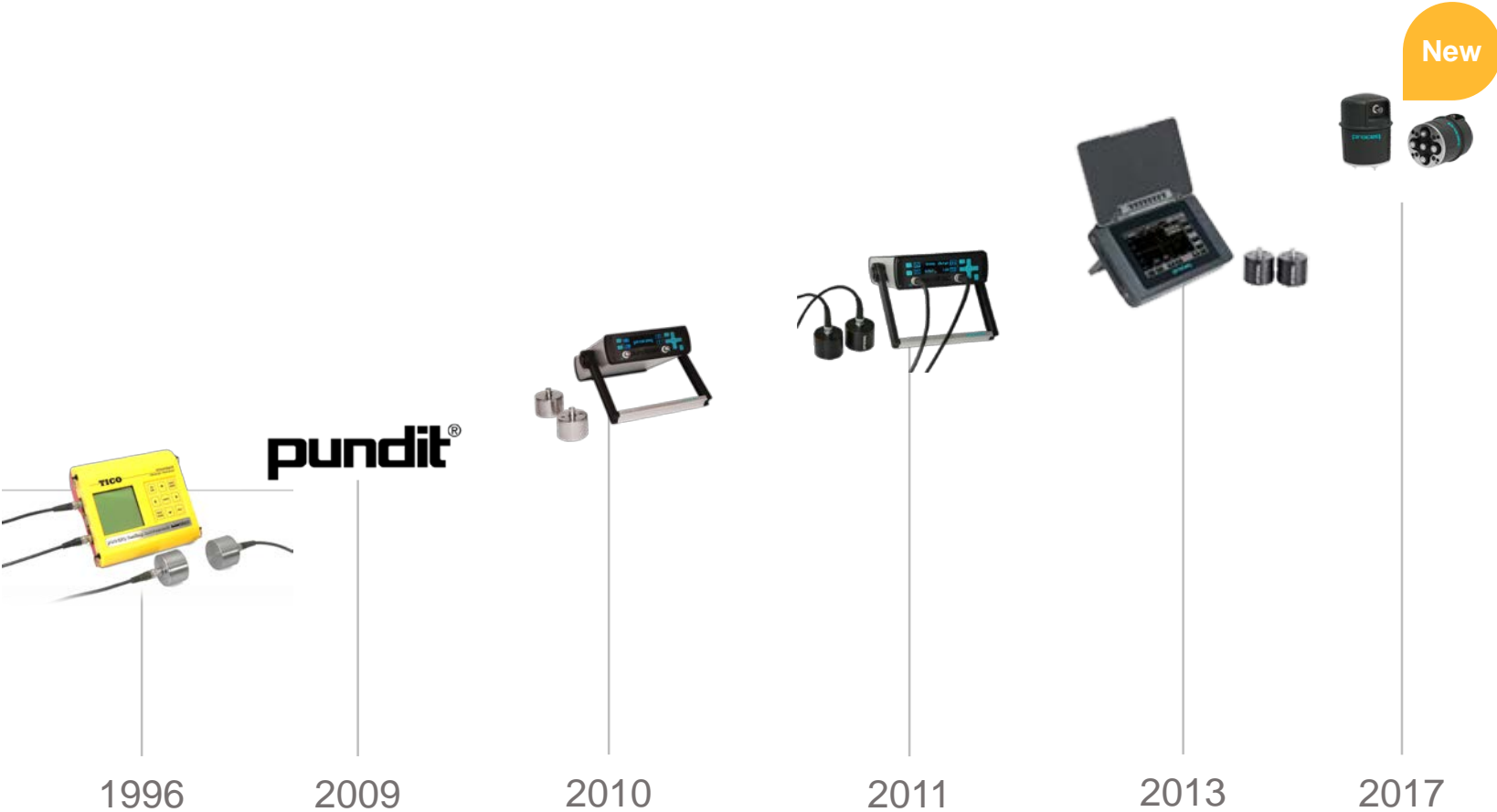
Switzerland Solutions since 1954



Pundit®

Portable Ultrasonic Pulse Velocity Testing

Constantly Innovating



Inspection Objectives



As-built verification



Contractors and engineering offices

Integrity assessment



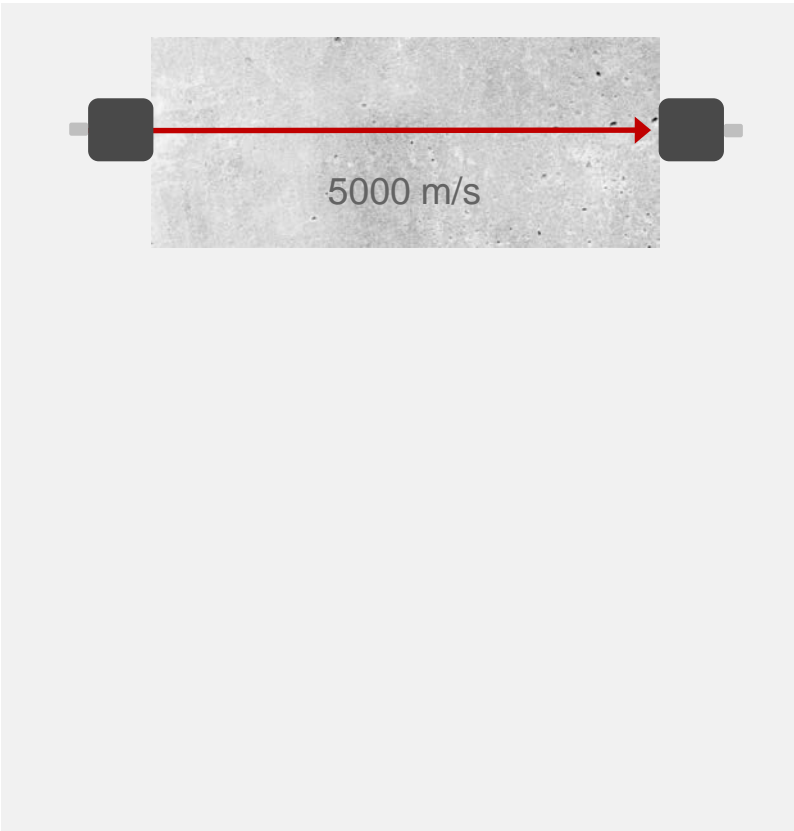
Engineering offices

Material characterization

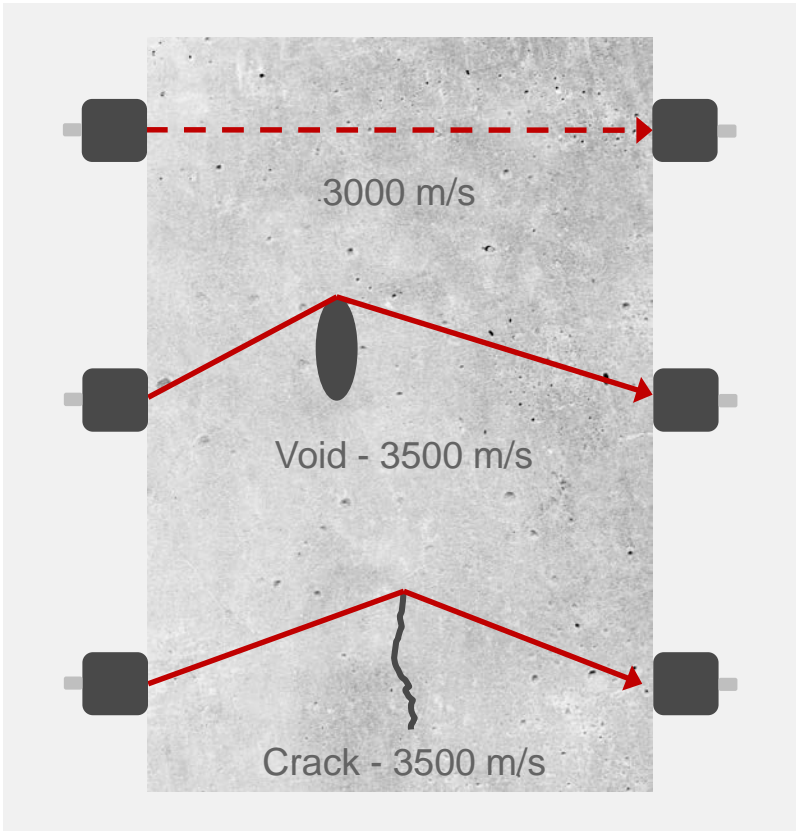


Geologists and educational institutes

Good concrete quality



Poor concrete quality



Technology



54 kHz for concrete quality



Exponential for special surfaces
(e.g. round, uneven, rough)

Industry Pain Points



Incomplete offering



Difficult to use



Poor consistency

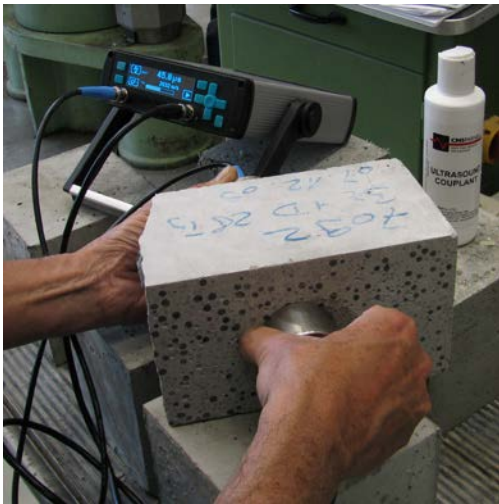
Pundit UPV Portfolio



Pundit Lab



Pundit Lab+



Pundit 200



Quality, crack depth, E-modulus, data logging

Compressive strength

On-site, waveforms, scanning

Pundit Probes



Concrete Transducer Portfolio


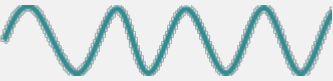



24 kHz

54 kHz

150 kHz



		
Mass concrete	Most applications	Small objects
< 15 m	0.5 – 7 m	0.5 – 1 m

Specialist Transducer Portfolio



54 kHz
Exponential



250 kHz



500 kHz



40 kHz
Shear wave



New

Rough surfaces	Cores	Small samples	E-modulus
Concrete Rock + Wood	Refractory bricks Fine grained rock	Ceramics Very fine grained rock	Concrete Rock

Dry-Point Shear Wave Transducer for E-Modulus



Why Measure E-Modulus?



Concrete



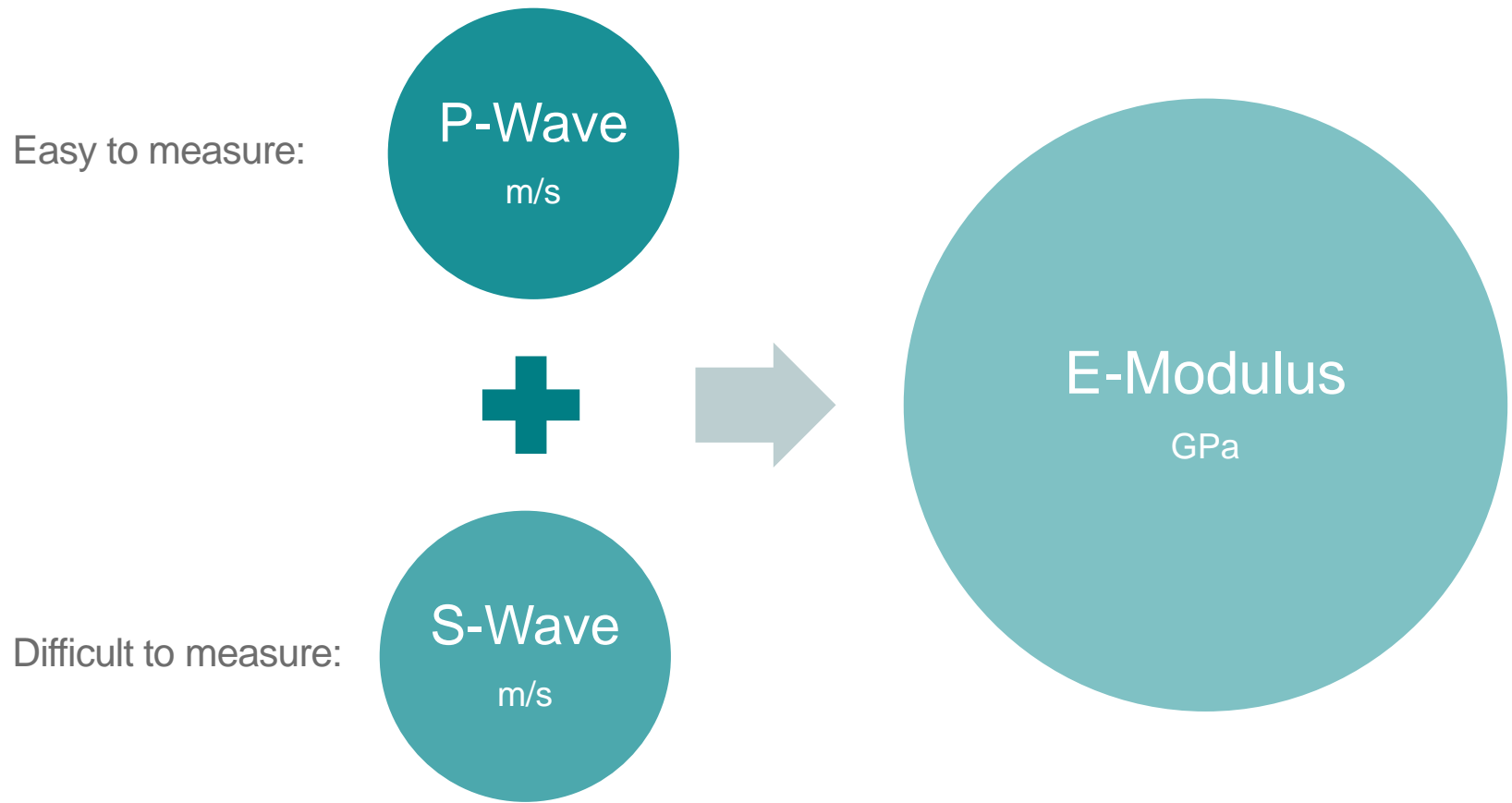
Resistance to deformation
from loading

Rock



Classification of rock cores
ASTM + ISRM

E-Modulus Determination from UPV



Current Solutions



Messy



Two persons (manual trigger)

Dry-Point Shear Wave Transducer



Clean

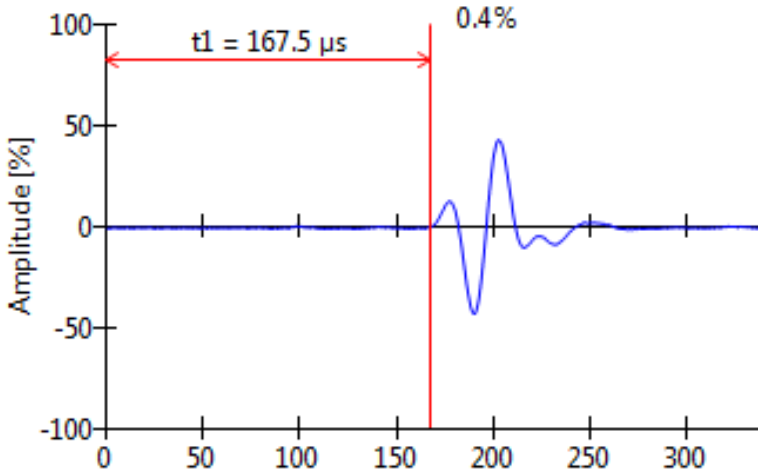


One person (automatic trigger)

Superior Measurement Results

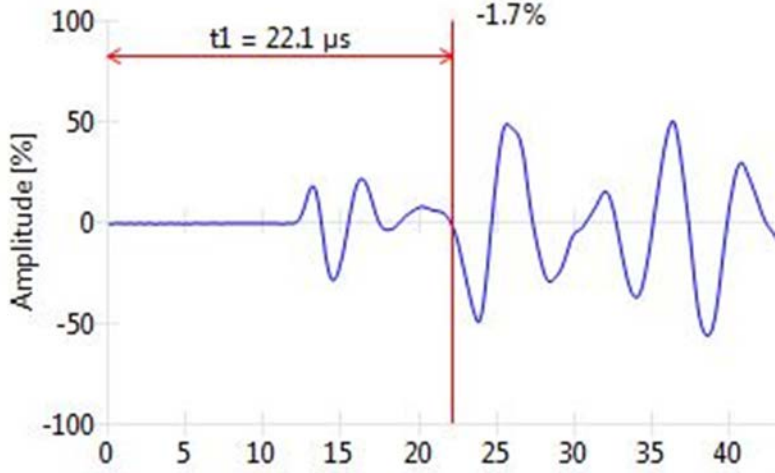


Proceq dry-point shear wave transducer



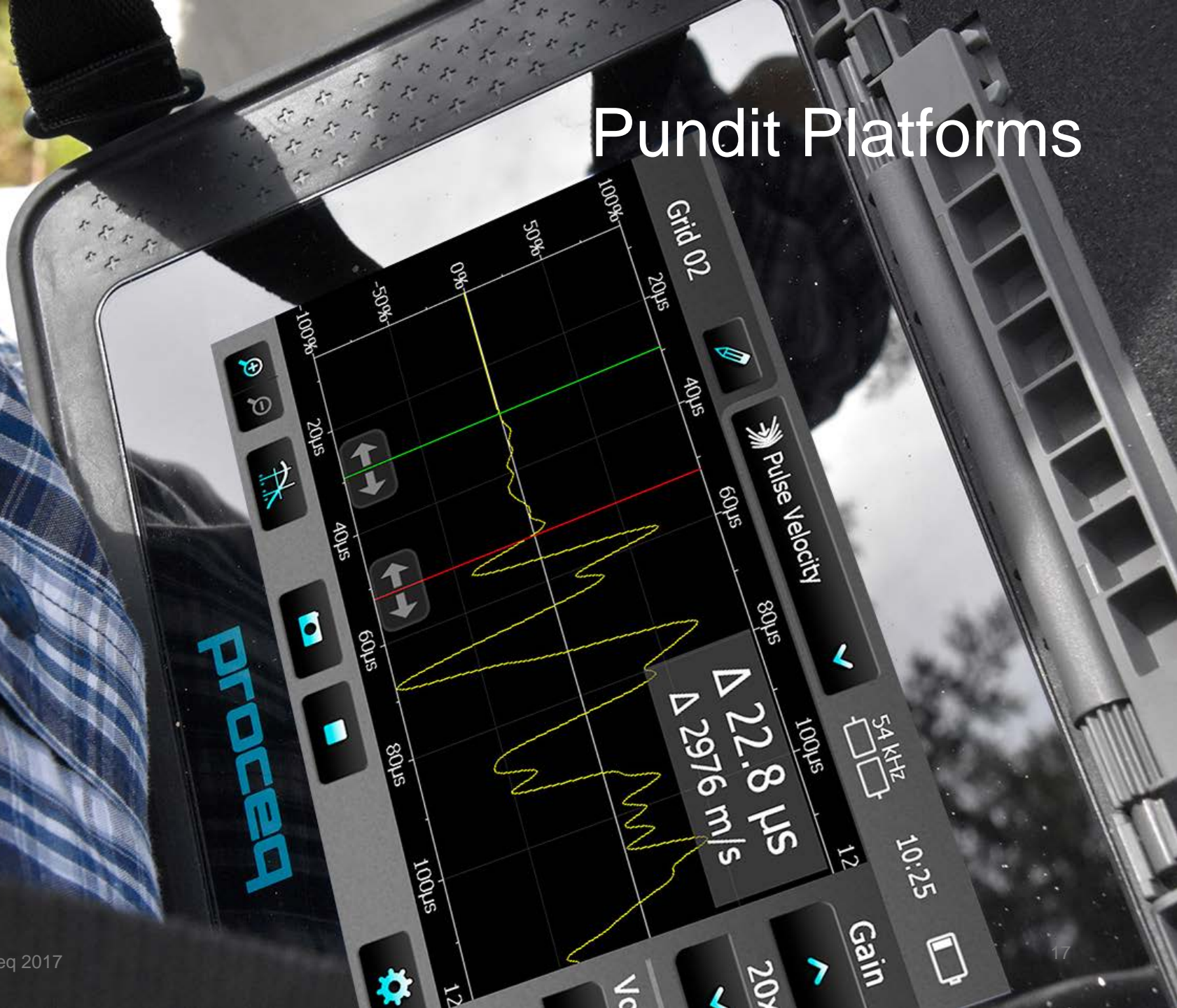
Automatic trigger
Consistent and repeatable results

Standard S-wave transducer

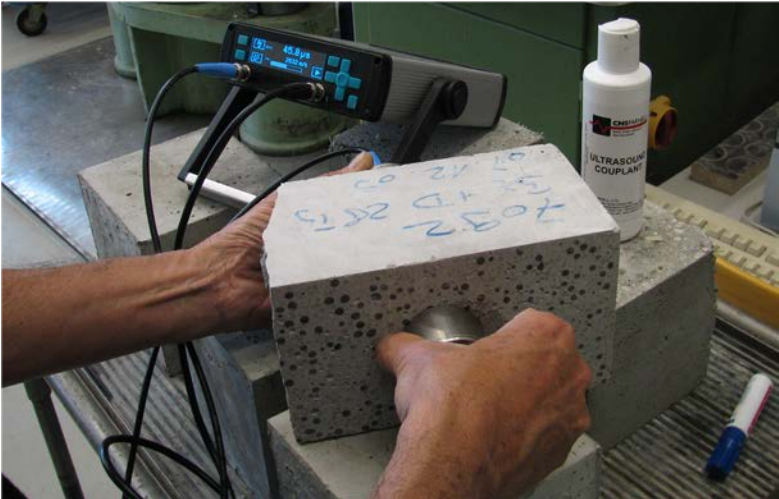


Subjective trigger, difficult interpretation
Inconsistent results

Pundit Platforms



Pundit Platforms



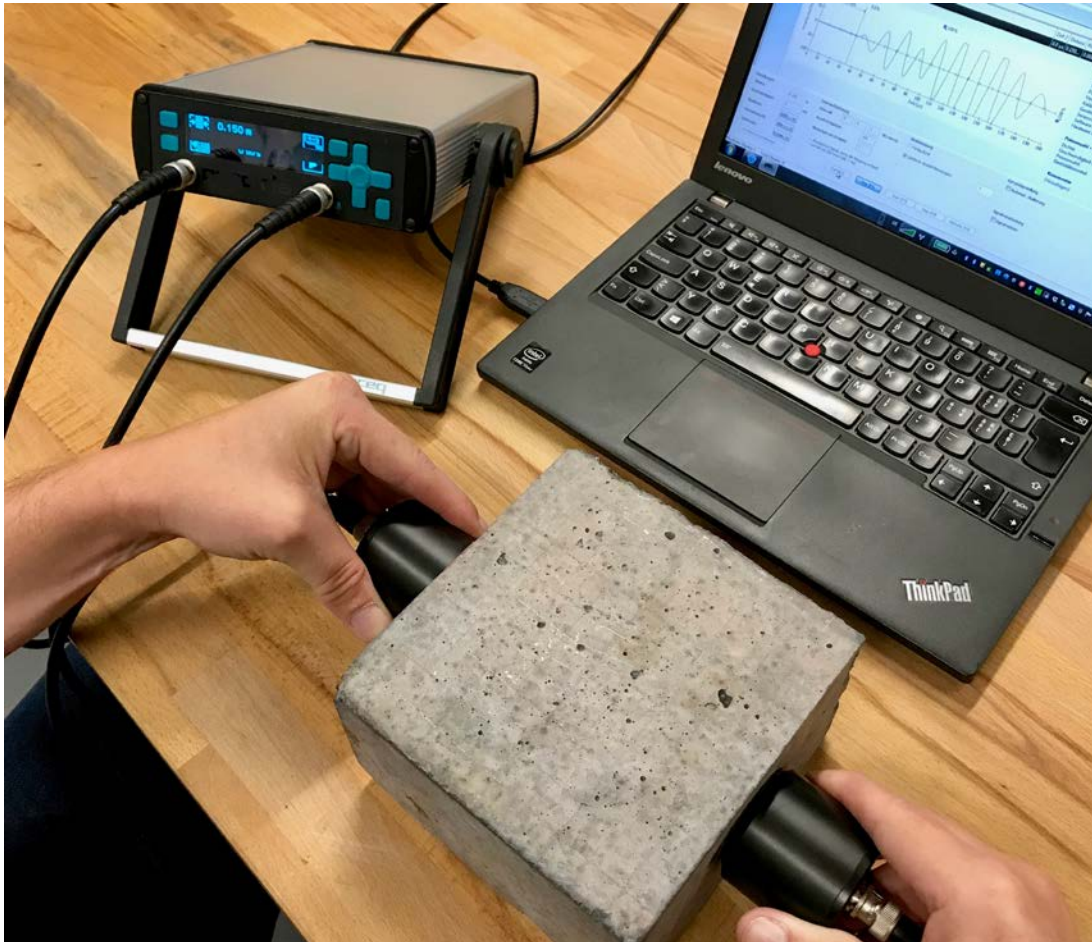
Pundit Lab / Lab+

Optimized for laboratory



Pundit 200

Optimized for site



- ✓ Waveform on PC / oscilloscope
- ✓ USB-powered device
- ✓ Third party remote control e.g. for in-line inspection or supervisor control

Pundit Lab Icon-Based Screen



54 kHz

9.2 μ s

1.00

Icons: Waveform, Target, Arrow, and a circuit diagram.

500 V

100

m

Icons: Lightning bolt, Arrow, and a globe.

Parameter settings

25.6 μ s

3466 m/s

500V

100

Icons: File, Storage, and a circuit diagram.

Pulse velocity measurement

t1: 25.6 μ s

t2: 80.0 μ s

0.250 m

Icons: Checkmarks and a circuit diagram.

Crack depth measurement

Pundit 200 Touchscreen



- ✓ Rugged IP54
- ✓ High resolution
- ✓ UPV and Pulse Echo

Full Control of Test Parameters



Complete parameter overview

Live signal strength adjustment

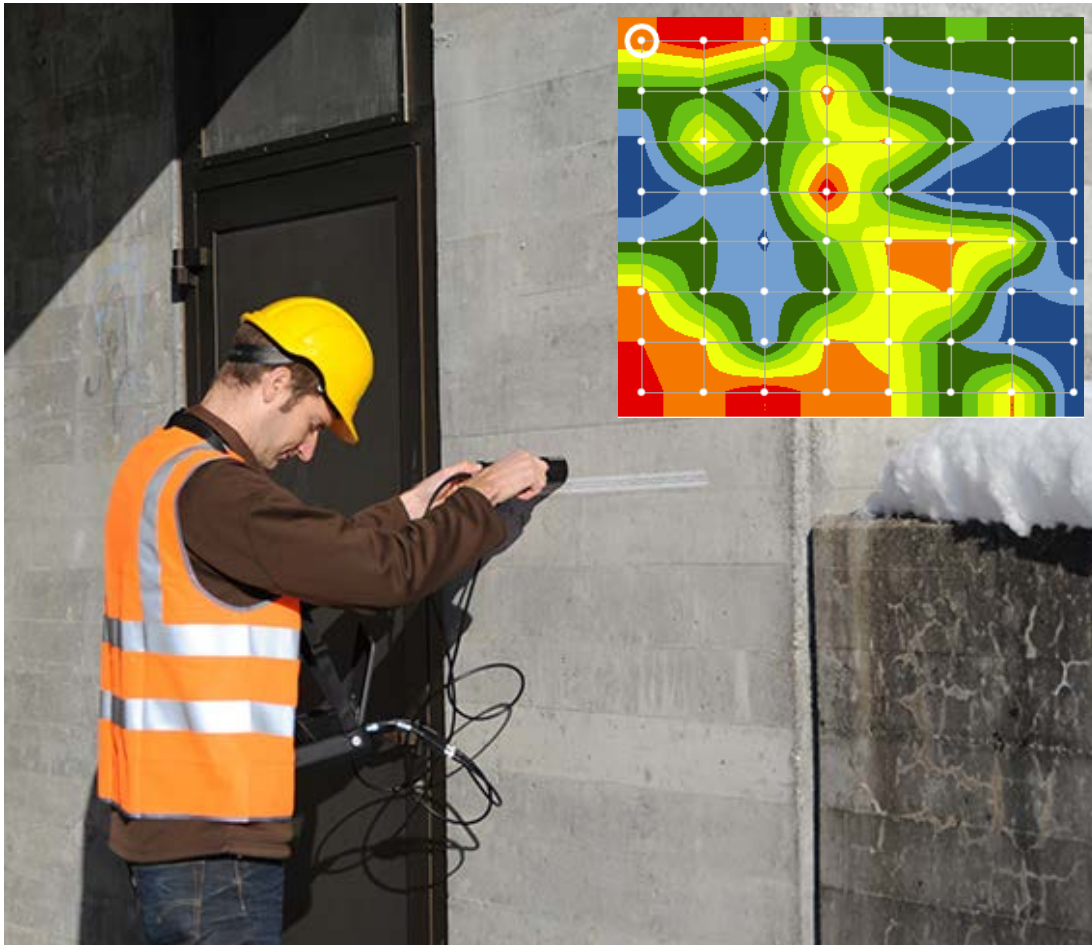
Full triggering control

Spotlight: Compressive Strength



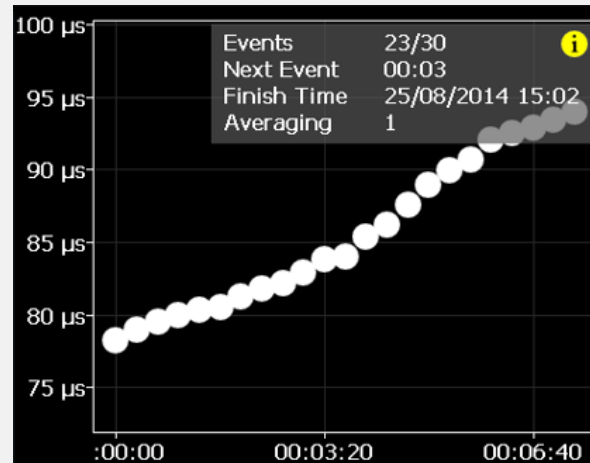
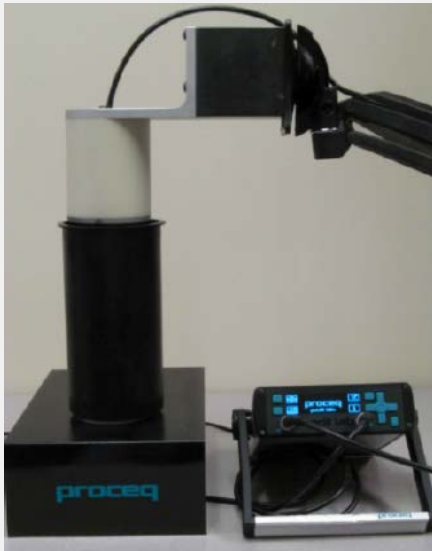
- ✓ Custom curves
- ✓ Correlate to UPV
- ✓ Combine UPV with rebound number (SONREB)

Spotlight: Area Scanning



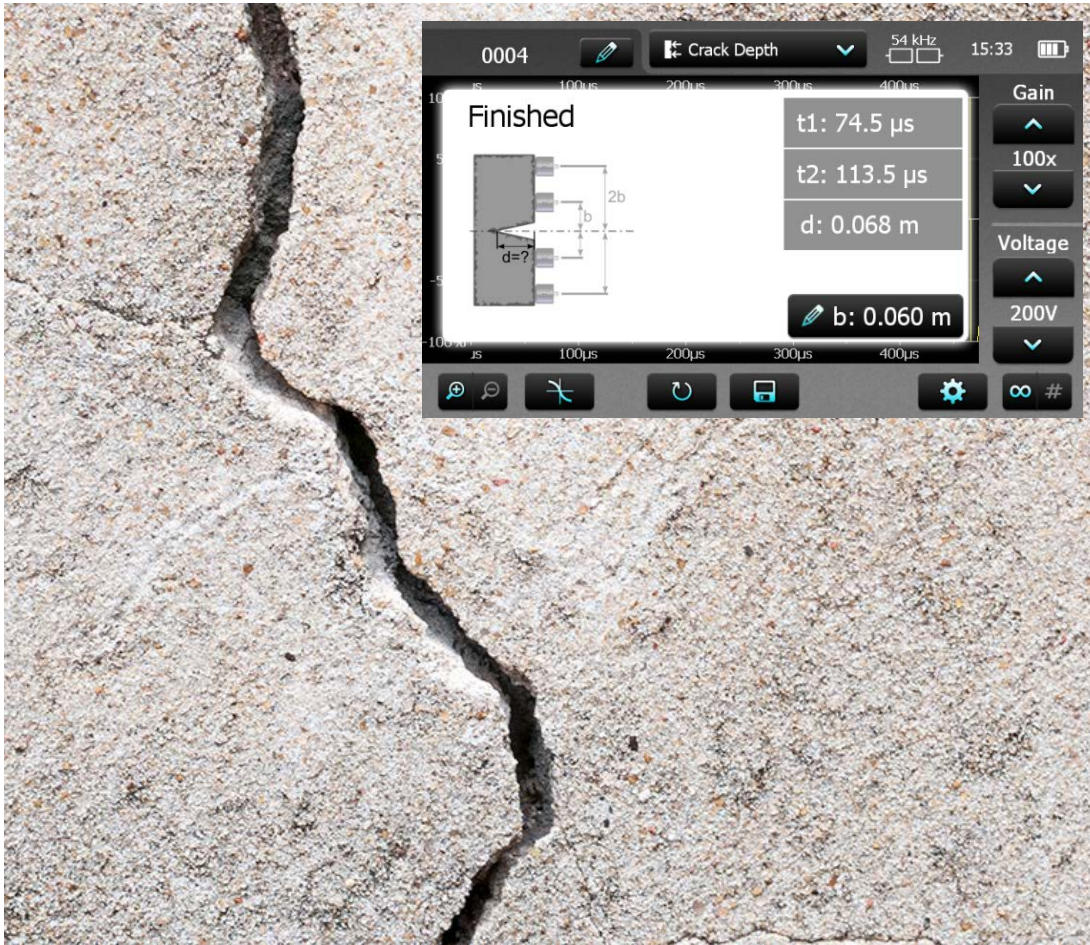
- ✓ Thickness variations
- ✓ Quality variations
- ✓ Clear display of results

Spotlight: Strength Development



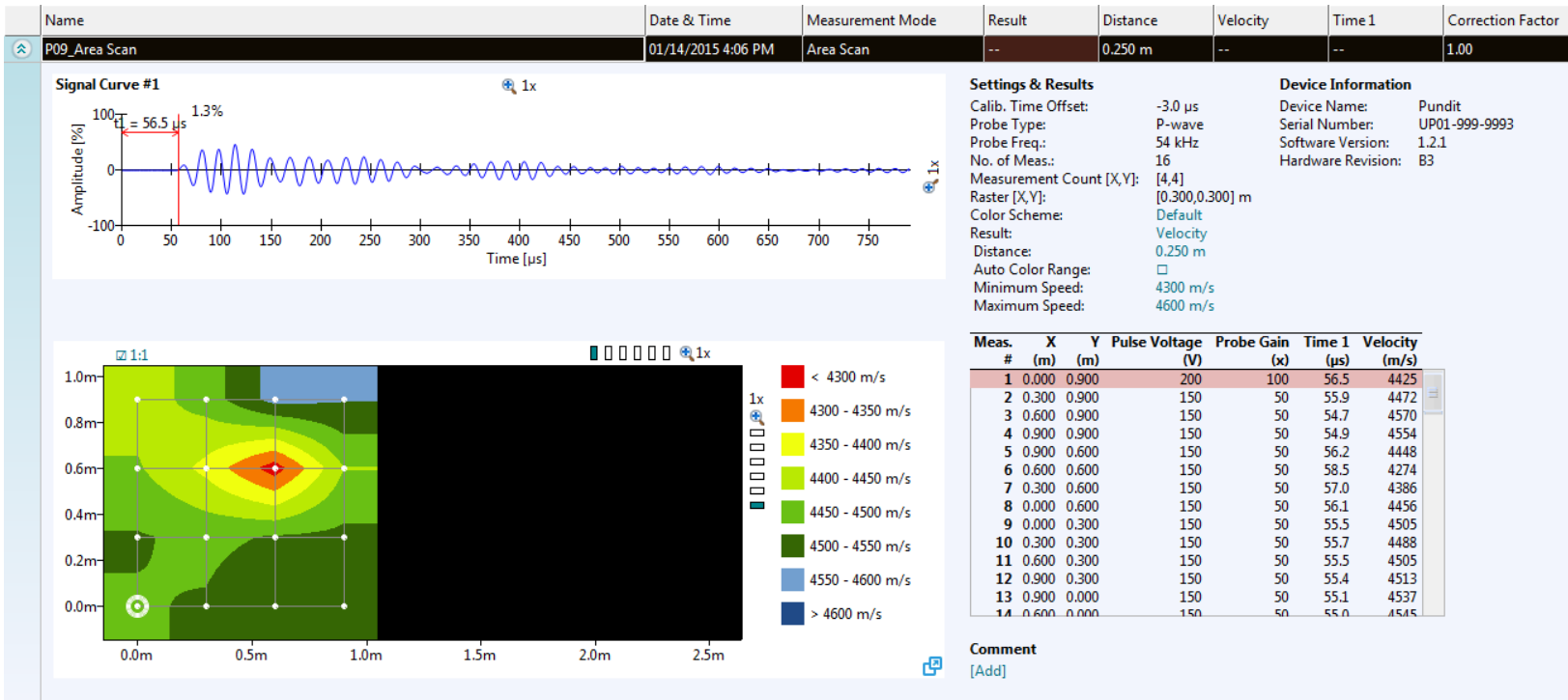
- ✓ Concrete curing
- ✓ Verification of mix design
- ✓ Programmable intervals

Spotlight: Concrete Cracking



- ✓ Crack depth
- ✓ Simple procedure
- ✓ Instant results

Report Generation in Link Software



Global Standards Conformity



EN

GOST

JCSE
JGJ





Complete offering



Ease of use



Trusted

Product Pricing



	Pundit Lab	Pundit Lab+	Pundit 200
Lab optimized	Light teal	Light teal	Light grey
Site optimized	Light grey	Light grey	Light green
Compressive strength + SONREB	Light grey	Light teal	Light green
Area and line scans	Light grey	Light grey	Light green
Compatibility with pulse echo and array transducers	Light grey	Light grey	Light green

Probe Pricing



New

24 kHz	54 kHz	54 kHz	150 kHz	250 kHz	500 kHz	40 kHz
P-wave						S-wave

A person wearing a blue and white plaid shirt and a black wristband is holding a black Pundit portable ultrasonic testing device. The device is connected to a tablet computer. The person is using the device on a light-colored concrete surface. The background is blurred, showing green foliage and a person's arm.

Pundit®

Portable Ultrasonic Pulse Velocity Testing

Pricing is subject to change. Features are subject to change. Tablet or smartphone not included in offerings. Additional fee may apply. General terms and conditions of sale and rental apply, see: www.proceq.com/service