GEN AI
GENETICS • PERFORMANCE • INTELLIGENCE
by SPORTOTEAM

ATHLETE ASSESSMENT · VALD HUB

Don't guess, measure.

VALD measurement systems turn strength, jumping, landing control and left–right balance into numbers; training is planned on data, not guesswork.

SPORTS CLUBS
ACADEMIES
ATHLETES



WHY MEASURE

Injury doesn't strike — it builds up.

The athlete trains, plays every match, has no complaints; yet the body may be loading one side. Most early warning signs of injury are invisible to the eye.

THREE INVISIBLE GAPS

Asymmetry

A strength gap building in one leg. Even a 20% left–right difference goes unnoticed; the athlete thinks it is “normal”.

Landing control

Load shifting to one side on landing and slow stabilisation; critical for knee and ankle.

Muscle balance

A widening gap between hamstrings and quadriceps, hip adductors and abductors, shoulder internal and external rotators.

“If you haven't measured it, you're guessing.”

WHAT IS VALD

Not a fitness device — a scientific measurement platform

Based in Australia

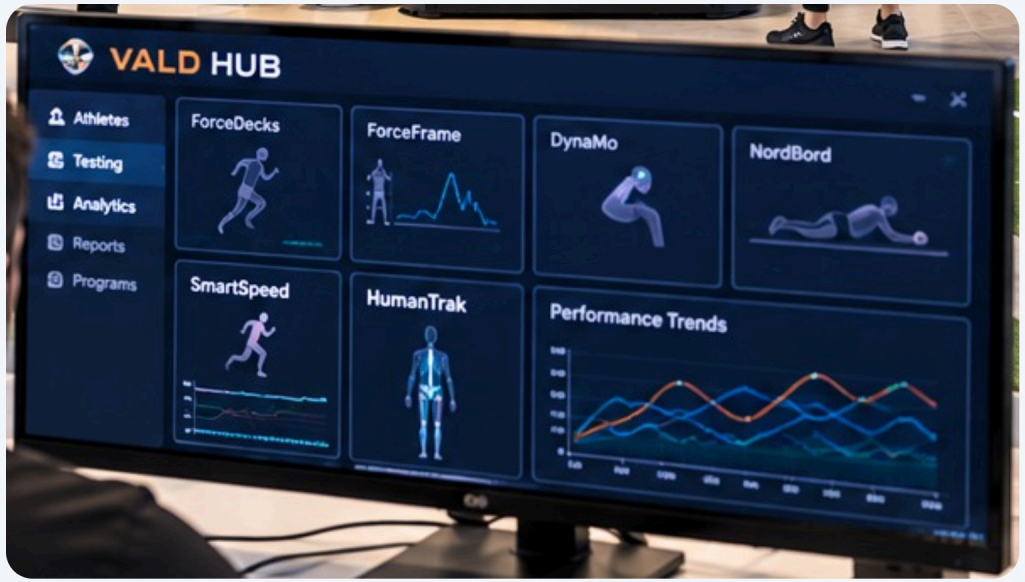
Human-measurement tech company; used by pro clubs, national teams, university sport, elite centres and the military.

Rooted in research

NordBord was developed at QUT by Dr. Anthony Shield and Dr. David Opar to study hamstring strains in the field.

In hundreds of studies

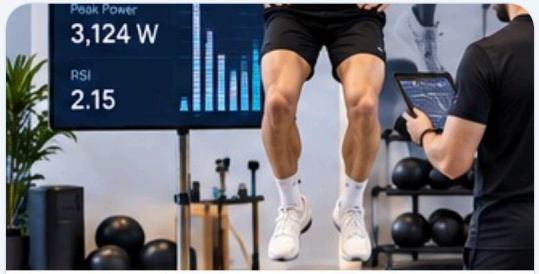
NordBord is now the standard hamstring test, used in hundreds of scientific papers.



VALD Hub: all measurements in one place; comparison with normative data (Norms) built on millions of tests.

SYSTEMS USED AT OUR CENTRE

Four systems, one athlete file



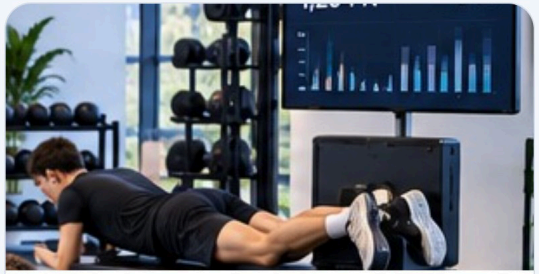
ForceDecks

Dual force platform

Measures left and right force in jumps, landing, balance.

FOR THE ATHLETE

Jump height and power, time to stabilise, how much work each leg does.



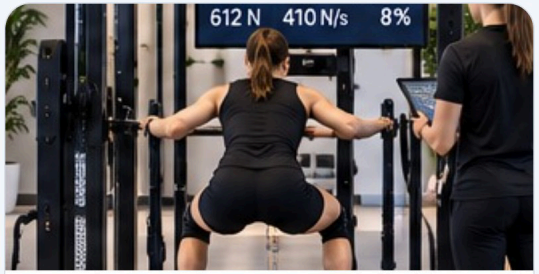
NordBord

Hamstring testing system

Measures eccentric strength of each leg separately in the Nordic exercise.

FOR THE ATHLETE

Hamstring strength and the gap between legs; critical in sprint-heavy sports.



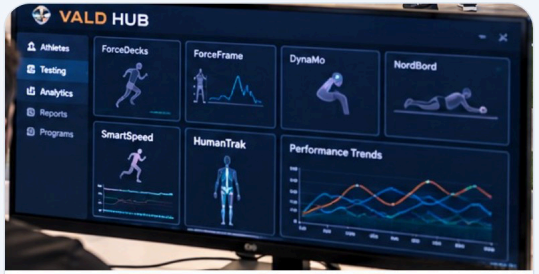
ForceFrame

Isometric strength system

Upper and lower body isometric strength in over 30 positions.

FOR THE ATHLETE

Groin (adductor/abductor), knee extension, shoulder rotator balance.



VALD Hub

Cloud platform

Collects all measurements, compares them with normative data.

FOR THE ATHLETE

Percentile by age and sex group; progress tracked over time.

STANDARD TEST BATTERY

Nine tests, about 45–60 minutes

Test	Device	What it assesses
Countermovement Jump (CMJ)	ForceDecks	Explosive power and jump height
Drop Jump – RSI	ForceDecks	Reactive strength: jump vs. contact time
Land and Hold (double leg)	ForceDecks	Time to stabilise, side-to-side load split
Single Leg Land and Hold	ForceDecks	Single-leg neuromuscular control; knee and ankle
Nordic Hamstring	NordBord	Eccentric hamstring strength, left–right asymmetry
Knee Extension (isometric)	ForceFrame	Quadriceps strength and side difference
Hip Adductor / Abductor	ForceFrame	Groin balance (Add:Abd ratio)
Shoulder IR / ER	ForceFrame	Rotator cuff balance; overhead sports
Hip Extension (isometric)	ForceFrame	Hip drive strength, posterior chain contribution

Every value is reported both in absolute terms (newtons, centimetres, seconds) and as a percentile. The battery is extended by sport and athlete history.

REFERENCE THRESHOLDS

Colour-coded, literature-based thresholds

LEFT–RIGHT ASYMMETRY

Below 10%	10–15%	Above 15%
Normal	Monitor	Marked

HIP ADD:ABD RATIO

≥ 0.80

Target value; based on groin strain literature.

SHOULDER IR:ER ROTATION

1.0–1.5

Approximate target band; decisive in overhead sports.

RETURN TO SPORT

LSI ≥ 90%

Strength ratio vs. the healthy side; plus asymmetry below 10% and pain-free full range of motion.

PROCESS

Five steps from interview to retest

1
Interview
Sport, position, training load, past injuries and complaints are recorded.

2
Measurement
Battery after a standard warm-up; pain-free, non-invasive, repeatable tests.

3
Clinical review
Physician and physiotherapist interpret the data with exam findings.

4
Report
Tables, risk ranking, physician-physiotherapist notes and field advice for coaches.

5
Program and retest
Retest after an 8–12 week targeted programme.

45–60 min
Standard battery incl. warm-up

2–3 sessions
Each season: pre-, mid- and end-season

8–12 weeks
Retest interval in targeted programme

BENEFITS FOR THE ATHLETE

8 real benefits for athletes

1

Hidden asymmetry becomes visible

Both sides measured at once, independently; the gap is quantified.

2

Risk is flagged before injury

Strength gaps and weak landing control are seen pre-season.

3

Return to sport is objective

LSI, asymmetry and pain-free range of motion; data, not feelings.

4

Performance loss is pinpointed

High strength, low jump: the issue is using strength fast.

5

Training is personalised

One trains strength, one landing, one shoulder balance.

6

Progress is proven

Retest after 8–12 weeks; change is shown in numbers.

7

Compared with peers

“74th percentile” instead of “300 N”: a clear position.

8

A common language

Athlete, coach and medical team look at the same table.

BENEFITS FOR THE CLUB

For the club: squad-level decisions

WHAT THE CLUB GAINS

Squad-wide screening
All players tested on one protocol; who needs what, in one table.

Priority ranking
Risk ranking directs medical staff time to those who need it most.

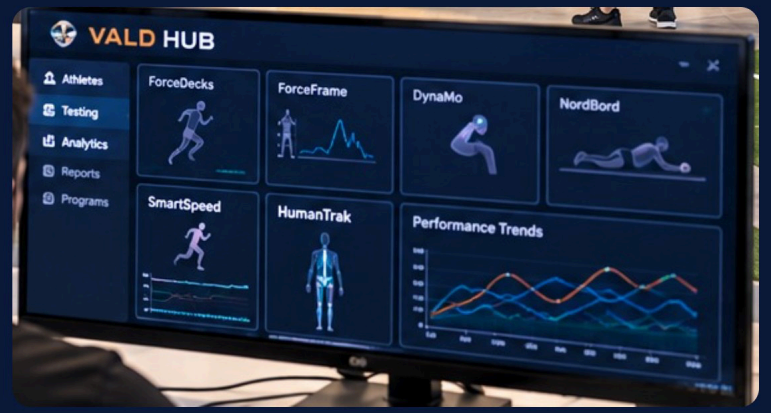
Season plan
Gaps are found pre-season, not mid-season, and built into the plan.

Return-to-sport decision
Players return when criteria are met, not when they say “I'm fine”.

Youth tracking
Development and early risk tracked in growing athletes.

One table, one dataset
Coach, physio and physician share one dataset; debate moves past intuition.

WITH SPORTOVISION GEN AI



VALD data flows into the athlete file, alongside camera tests, match load and morning screening. Management, coaches and families each see their own report.

READING THE REPORT

No number stands alone; it is read in context

PERCENTILE

74th

“300 N” is abstract; 74th percentile for age and sex is a clear position.

PROGRESS

+4 cm

CMJ gain after the programme: the athlete sees the difference, not just feels it.

ASYMMETRY

20% → 8%

After targeted work, the left–right gap drops below the monitoring band.

DIVERGENCE

Strength ↑ Jump ↓

High isometric strength but low jump: the issue is using strength fast; the programme changes.

Sample values. The report gives each value in absolute units (N, cm, s) and as a percentile, with risk ranking, physician and physiotherapist notes and field advice for coaches.

HONEST LIMITS

What measurement tells us, and what it doesn't

What it provides

- Makes modifiable risk factors visible
- Targets the intervention
- Proves progress in numbers
- Builds a personal baseline for comparison after any future injury

What we don't claim

- Does not prevent or reliably predict injury; injury is multifactorial
- Not a diagnosis; no substitute for clinical exam
- A pain-limited test is not “low strength”: it is reported as invalid and repeated

> **Saying this honestly is worth more than overpromising.** Reports are reviewed jointly by the physician and physiotherapist.

WHO IT'S FOR

From pro level to sports school

Professional and licensed athletes

Pre-season screening, in-season monitoring, return-to-sport decisions.

Young athletes and sports schools

Development tracking and early risk detection during growth.

Post-injury phase

Objective rehab monitoring, validation of return criteria.

Amateurs and regular exercisers

To reveal strength gaps behind recurring pain.

Teams and clubs

Squad-wide screening, comparative reporting, priority ranking.

FAQ

- **Does it hurt?** No, the tests are non-invasive.
- **Suitable for children?** Yes, safe during growth.
- **Sharing?** With coach and club medical staff, with consent.



Don't guess, measure.

Knowing what an athlete is missing is worth more than knowing how much they train.

Request a squad screening for your team

VALD, ForceDecks, NordBord, ForceFrame and VALD Hub are trademarks of VALD; Sportoteam uses these systems.