

## Accuracy and Labelling

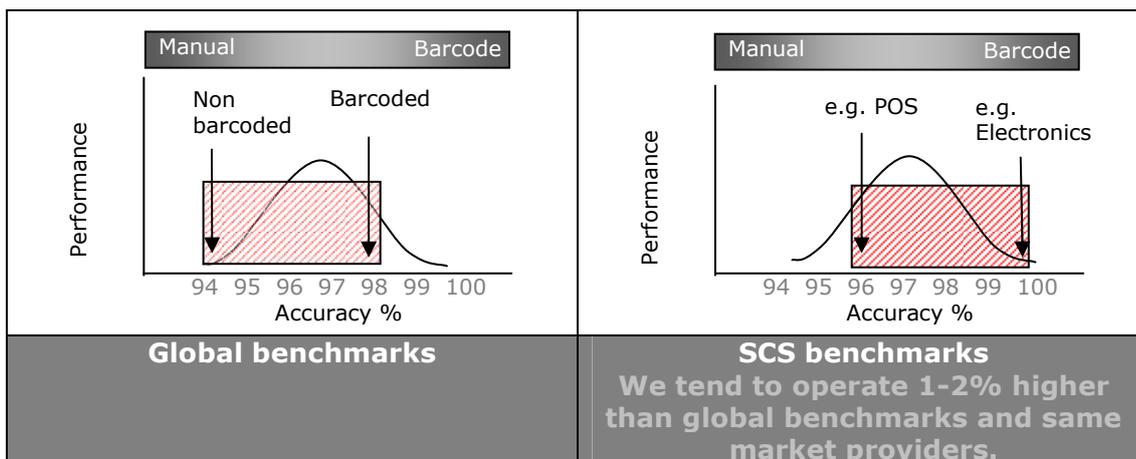
At SCS we actually measure and monitor over 100 KPI's here we are discussing just 3 key ones that effect inventory.

1. **Gross Stock Accuracy**
2. **Net Stock accuracy**
3. **Order processing accuracy**

**Gross Stock Accuracy** - this is a stock versus location measurement.

Gross accuracy is always lower than net accuracy because Gross accuracy factors in transfers and transfers account for most inventory issues (up to 80%). Our Gross accuracy is normally around 96%. Best practice globally is 91%. Its far more complex and difficult to attain high gross accuracy levels than most people warrant.

This is a measurement of	Factors that effect Gross accuracy
<ul style="list-style-type: none"> <li>- right product (Mandatory)</li> <li>- right quantity</li> <li>- right location (Mandatory)</li> </ul>	<ul style="list-style-type: none"> <li>- barcoding &amp; labeling</li> <li>- How fast a product moves</li> <li>- Transfers and replenishment</li> <li>- Processing errors (inwards and outwards handling)</li> <li>- Fatigue</li> </ul>



Note: the bell or parabolic curve represents a mean average

To manage the gross accuracy we conduct regular cycle counts or locations audits.

A **cycle count** is where we select a range of locations (normally geographical but sometimes SKU dependent) and we count the items by product code by location as per the system reports.

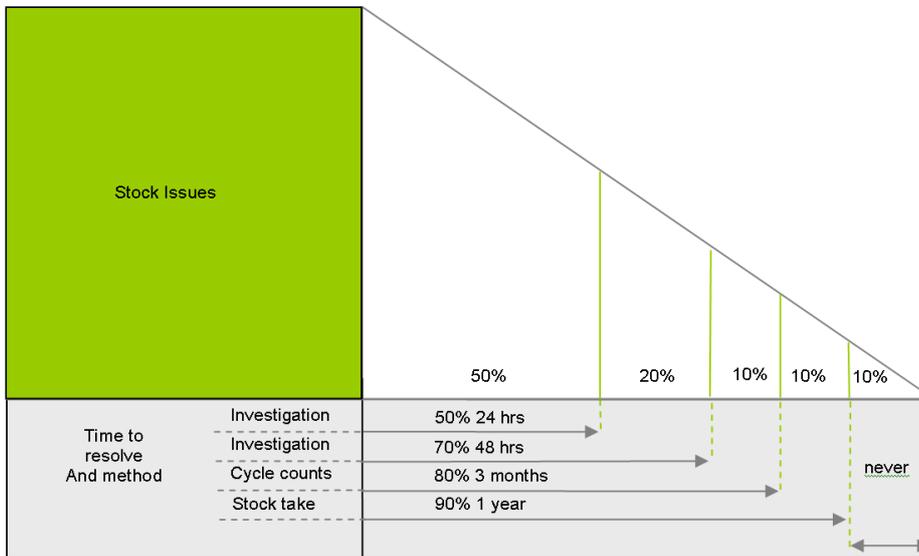
A **location audit** is where we don't bother with the count just the right product in the right location, SCS invented location audits (as far as we know) they are much faster than cycle counts and support a theory that if a count in a location is out and we know where all the same product codes are, then the probability is that the imbalance is in one of those locations therefore we can solve the imbalance quicker. Location audits are about 3-5 time quicker to conduct than cycle counts meaning we can cover the warehouse much faster and keep stock tighter.

Gross stock inaccuracies represent one of our (and your) most frustrating error types, because it means at a critical time when we need an item to fulfill an order it is not in the location the system says it should be.

Gross stock inaccuracies are caused by;

Transfers (replenishments, reconfiguring), inwards count errors, inwards data entry errors, picking error and supplier packing errors not picked up on inwards.

The following table illustrates a typical timeframe to resolve **gross stock accuracy issues**. **Gross stock accuracy issues (as we call them) are commonly referred to globally as IRA (Inventory Recording Accuracy) measurements.**



This matrix below demonstrates the same timeframes but within the typical SCS error threshold which is typically 4%. Interesting to note that best global practice for IRA is 9%

Gross stock accuracy error	Rolling balance		Rolling balance	Time to fix	Reason types and probabilities (when a gross stock inaccuracy occurs we have a 14 step programme we follow to unwind and investigate to determine where the error may have occurred.
4%	2%	50%	50%	24 hours	SCS - Inwards receipting error (10%)
	3%	20%	70%	48 hours	Supplier packing error (10%)
	3.4%	10%	80%	3 month	SCS - Picking error (10%)
	3.8%	10%	90%	1 year	SCS - Transfer error (50%)
	4%	5%	100%	never	SCS - Data entry error (5%) Customer receipting error (15%)

When we find a gross stock accuracy error we can decide to launch an investigation, a stock investigation has 11 steps.

For these reasons, when there is an issue created around a gross stock accuracy error the normal procedure is to park the missing items and wait until Stocktake to address them.

You can learn a lot more about IRA's and global standards by "googling" IRA, this document is not designed to be an exhaustive reference site around this topic but rather to provide a framework to help SCS clients understand how we deal with stock accuracy issues.

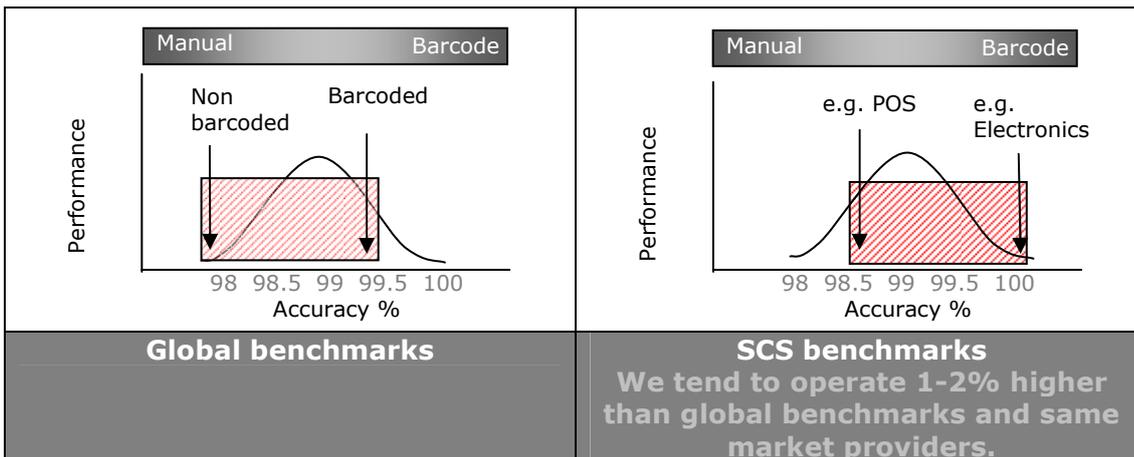
**Net stock accuracy** - this is a stock accuracy by unit - measurement.

This is established at a stock take when we stop everything, get all transactions up to date and freeze the flow of activity, then count.

We set off any increases in expected counts against any decreases in expected counts to determine a net imbalance, we then measure this against the units handled since the last Stocktake to determine the net stock accuracy metric.

The function of a complete stock take (counting all the stock in one go) picks up most internal errors that effect our gross stock accuracy. This means for the short period after the stock take our gross accuracy increases from 96% to close to 100% but then degrades over the course of time as the thousands of transactions inwards, outwards and from bulk to pick face occur.

This is a measurement of	Factors that effect Net accuracy
<ul style="list-style-type: none"> <li>- right product</li> <li>- right quantity</li> </ul>	<ul style="list-style-type: none"> <li>- barcoding &amp; labeling</li> <li>- How fast a product moves</li> <li>- Transfers and replenishment</li> <li>- Processing errors (inwards and outwards handling)</li> <li>- Fatigue</li> </ul>



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### Summary

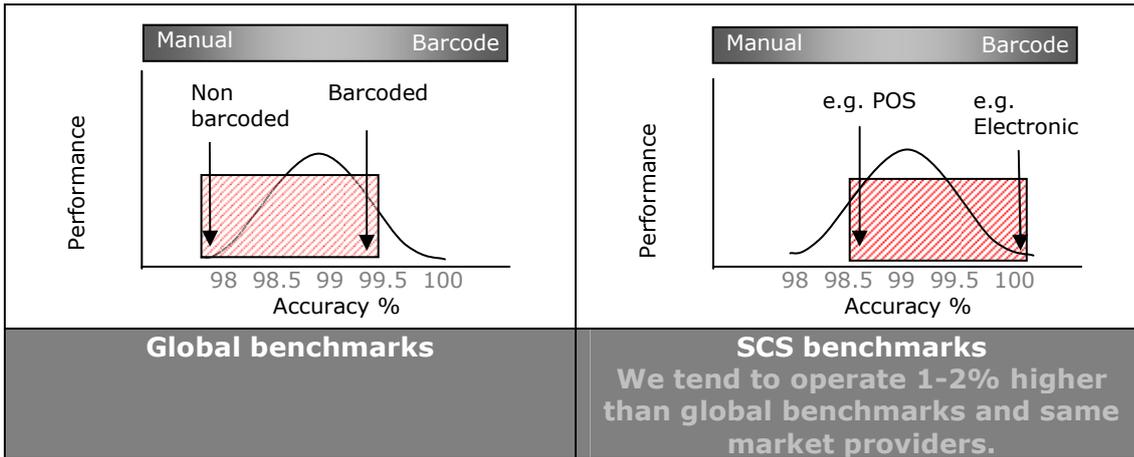
Gross Stock accuracy metrics tend to sit around 96% AVERAGE for stock, because of the **time-to-solve** continuum most imbalances do not result in bad outcomes but Murphy's law is that some do end up contentious which is why it helps if all stakeholders understand the process and steps taken to manage gross accuracy errors. For this reason we encourage sharing this document with all staff at client companies who are involved with stock issues.

As with all things a bit of understanding goes a long way to a happy life!

Net stock accuracies at SCS tend to sit around 99.5% AVERAGE by unit for non barcoded stock and lower for item where e.g. POS (Point of sale) or bad labeling is concerned. POS is the worst because printed matter is often weigh counted and moisture content in the air produces different results each time.

**Picking accuracy** - this is a stock accuracy by line pick - measurement

This is a measurement of	Factors that effect Order Dispatching accuracy
<ul style="list-style-type: none"> <li>- right product</li> <li>- right quantity</li> </ul>	<ul style="list-style-type: none"> <li>- barcoding &amp; labeling</li> <li>- Processing errors (inwards and outwards handling)</li> <li>- Fatigue</li> </ul>



Barcoded products with good labeling (single and ratio/pack level), good packaging thought (e.g. barcode is easily accessible, not tucked within a shirt that is folded and sealed within a plastic bag) can deliver picking accuracies and inventory accuracies as high as 99.92% which is what we'd expect to achieve for products like electrical appliances.