



Barcode Quality Assessment at POS (Point of Sale) and poor quality barcode impact on POS efficiency

**Edgars
Pentjušs,
GS1 Latvija**

**Gatis
Pakalniņš,
Supernetto**





RIMI Latvia network



	Rimi Baltic	Latvia	Lithuania	Estonia
Total	243	101	65	77
Rimi supermarkets	67	30	27	10
Rimi hypermarkets	36	14	13	9
Hard discounters	139	57	25	57
Cash & Carry	1			1
DC	3	1	1	1





What happens if retailers accept poor quality bar codes



Stand in queue again! ☹

- Poor Customer Service at Checkouts
- Frustration by Staff and Customers
- Product Dislike and Avoidance
- Extra costs to fix them.
- Affects all systems (POS, replenishment)





Cashiers always try to solve the barcode quality problems by



- Manipulating the product, its packaging to get the correct scan
- Call colleague to check the correct barcode number at shelves
- Maintains the self made correct barcode catalogue for frequently damaged codes
- Learning top 5 non scanning barcode numbers by heart





Rimi Baltic/Supernetto barcode quality conformance program



GS1 Latvia

Quick Check
890: Scan Grade Report

Filename: 2372335022889_2.sgf
 Date: 23-Oct-2009
 Scan: 10 of 10

Symbology	EAN-13
ISO grade	A - 4,00 / 06 / 660
Traditional grade	OK

Failure Summaries:

Scan data	
Reflectance	
Dimensional	
Format	
Miscellaneous	
Applications failure	

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Izdots:
Komentāri par svītkoda simbolu: OK!

Paskaidrojums: svītkoda simbola pārbaude tika veikta ar ISO/IEC 15426 atbilstošu verifikatoru un ievērojot ISO/IEC 15416 svītkoda drukas kvalitātes pārbaudes nosacījumus, kuru nolūks, ka minimālajam svītkoda kvalitātes novērtējamam jāatbilst C - 1,8 (ISO grāds) pēc ISO/ANSI novērtējuma skalas* un GS1 parametriem** - OK (Traditional grade).

***ISO/ANSI novērtējumu skalas (ISO grade) tabula:**

ANSI	ISO/CEN	Komentāri:
A	3,50 - 4,00	Ieskaņots
B	2,50 - 3,50	Ieskaņots
C*	1,5 - 2,50	Ieskaņots
D	0,5 - 1,50	Izskatās
F	0 - 0,5	Izskatās

****GS1 parametru novērtējums (Traditional grade):**

OK	OK	Ieskaņots
F	Failed	Izskatās

Since September 2009, in order to prevent losses from accepting poor quality barcodes, our suppliers are asked to verify their barcodes against minimum ISO print quality requirements and traditional GS1 standards.

More information about barcode verification on GS1 Latvia site:

<http://www.gs1.lv/?mid=18>



GS1 standards used by millions of companies



■ Countries with a GS1 Member Organisation

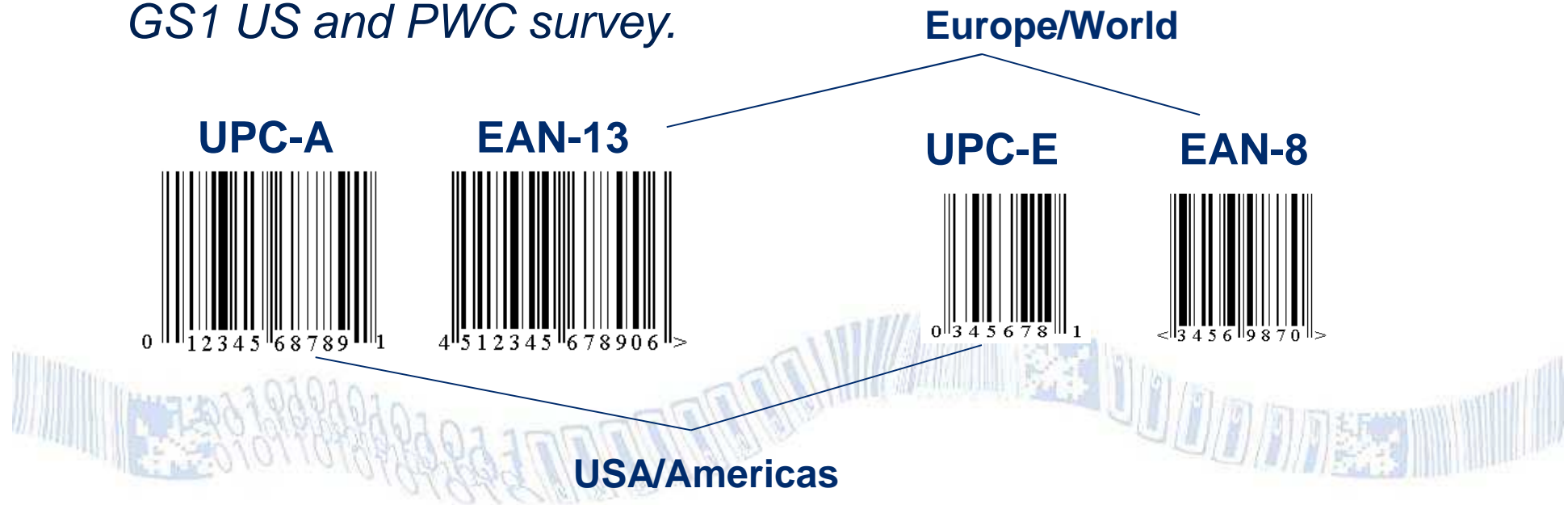
■ Countries served on a direct basis from GS1 Global Office (Brussels)

**108 Member Organisations.
150 countries served.
2,000 people helping us.**

GS1 Competence area (Enablers)



- First introduced at POS **35 years ago** and the first passed Marsh Supermarket (US) checkout on Wrigley chewing gum pack
- Estimated annual cost savings of **\$17 billion (USD 17'000'000'000)** in the grocery sector alone, *according to the GS1 US and PWC survey.*





Ideal POS (EAN-13/8) Barcode:



- **Scans with the first time, every time**
- The product number (GTIN) registered and maintained in Global GS1 system
- Has correct location on the product, easy to find and bring to the scanner
- Comply with minimum requirements of traditional GS1 (Dimensional) and ISO print quality requirements;
- Has correct orientation (Ladder or picket fence), depends from product shape and print technique.





Inspired by GS1 FRA / Carrefour / IRI survey whereas



31 billion annual POS item transactions in France

2% had reading errors

23 seconds on average to resolve each error

Poor quality barcodes cost time and money

20% of super/hypermarket shoppers had a poor experience due to non-conform barcodes.

The equivalent of 2700 cashiers per year spend time trying to solve these problems.



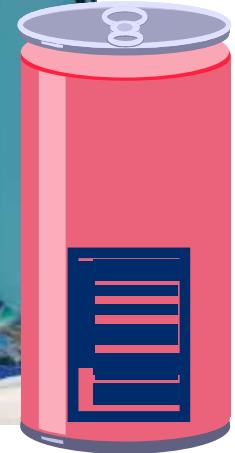
GS1 Barcode quality audit at Supernetto:



- 1300 control scans
- 45 products with potential reading problems
- Suppliers advised to do the barcode ISO print quality and traditional GS1 verification;
- Suppliers encouraged to do the corrective measures for the barcode labels and/or packaging improvements.
- Field survey on cashiers' time spent on solving barcode errors



The most common mistakes: Wrong placement



- Always consult with designer and packaging company to avoid corner wraps and package flaps.
- Barcode orientation on cylinders = ladder

The most common mistakes: Color problems

Wrong!

Four examples of barcode labels with color problems. Each example shows a real label on the left and a corresponding barcode on the right with a color overlay. The overlays are: 1) Orange, 2) Blue, 3) Pink, 4) Yellow. The barcodes are labeled "5 012345 678900 >".

OK!

Four examples of barcode labels with correct color overlays. Each example shows a real label on the left and a corresponding barcode on the right with a color overlay. The overlays are: 1) Orange, 2) Green, 3) Yellow, 4) Blue. The barcodes are labeled "5 012345 678900 >".

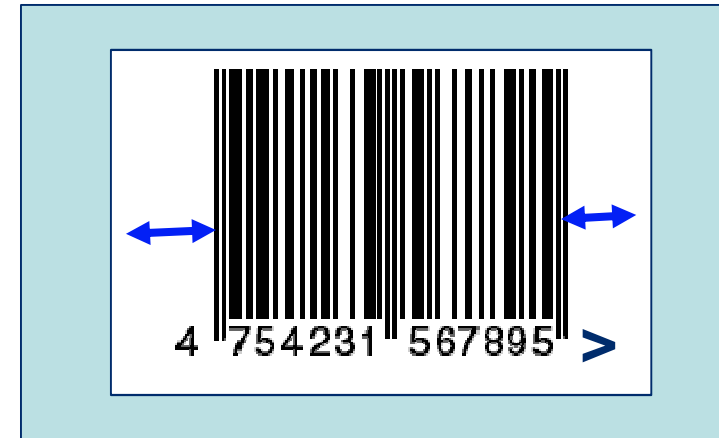
The most common mistakes: Poor print quality



Print quality of barcodes must comply with ANSI grade A, B or C (equivalent ISO grade 1.5 and higher), provided that evaluation thereof is carried out following the methods set forth in the standard ISO/IEC 15416:2000

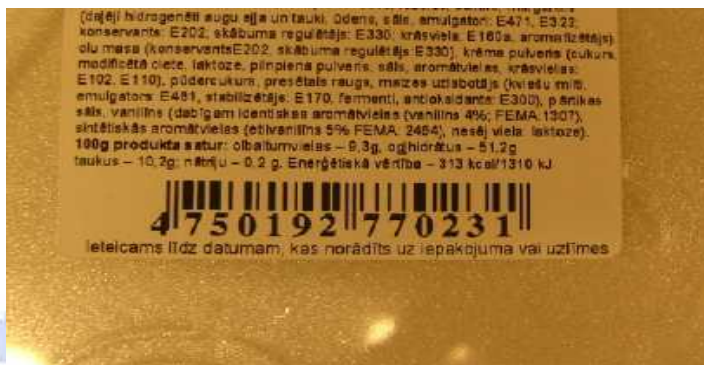


The most common mistakes: Insufficient height and quite zones



Omni directional scanning environment at POS

Left and right quiet zones



and the Award goes to ...



1129 pieces sold per Day
with an average **20** sec for
manual entry at POS is **188**
working hours per month

=

1 extra full time cashier for
retailer and an average **3-4**
people standing in the
queue for 40 hours per
week on customers side



Barcode quality remains important also for tomorrow...



Increasing number of **Self checkout services** and the use of **mobile phones for scanning** barcodes by shoppers may require quality barcodes in the future to be read by all.





Paldies

감사합니다

Aitäh
Achiu

ありがとう

Thank you

謝謝

Danke Schön

Terima Kasih

Gracias

Спасибо

Grazie

Merci

Dank u

