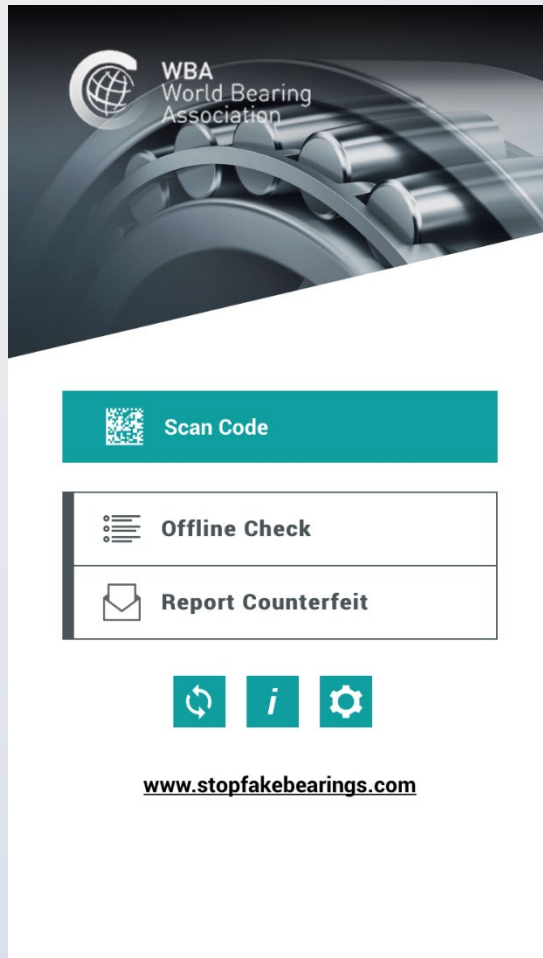


# WBA Initiative - Bearing Authentication System

## International Motion & Drives Summit

**19. April 2023**





# World Bearing Association (WBA)

## Some Facts



- Created in September 2006
  - to focus on critical issues in the \$45 billion global bearing industry and
  - to promote the common, lawful interests, such as
    - open economic engagement,
    - sustainable development and
    - the protection of legal rights.
- Multinational global corporations
  - manufacturing in more than 70 countries and five continents,
  - representing about 250.000 employees worldwide.
- Members:
  - The American Bearing Manufacturers Association (ABMA),
  - the Federation of European Bearing Manufacturers' Associations (FEBMA) and
  - the Japan Bearing Industry Association (JBIA).

WBA check App is a  
single point of entry



**NTN** **NACHI**

**NSK** **JTEKT**

**SCHAEFFLER**

**SKF** **TIMKEN**

... to check the authenticity of  
bearings of all well known  
manufacturers being members  
of the WBA.



# The main system components



## Serialized Code

- Applied by manufacturer on the product and/or package
- URL / GTIN\* / unique number
- Products' digital twin
- Single point of entry to manifold digital services for end customers, mechanics, service employees etc.

\* type reference



## Mobile Apps/Services

- Simple scan of the code
- Worldwide access 24/7
- Additional services from the display of product information and fitting instructions to the collection of bonus points
- Assignment of role specific services



## Cloud Backend

- Stores all codes (currently 3.5 billion) and code related events
- High performant, secure environment
- Serial vault to create random serial numbers
- Connection to external data sources like the manufacturer's ERP system, product catalogues etc.



## T & T Portal

- Allows the manufacturer
- to trace all code related events,
  - to gain insight into the movement and usage of his products
  - to evaluate for instance grey market activities.

# Possible Endpoints – Different Users, different components



WBA Authenticator 2.0



osapiens 1D+

## WBA and oneIdentity+ App

- **oneIdentity+** App now replaced by **osapiens 1D+** App
- **WBA Authenticator** App replaced by **WBA Authenticator 2.0**
- **Old Apps** do not allow code check anymore, but show webpage with **download links** of new App



WBA WeChat MiniProgram

## WBA WeChat Miniprogram

- Automatically calls the **new code check interface** that connects to the new system
- Code checks of all WBA manufacturers should work as before



Motorservice



ATE

## Catalogue Apps: Mobile Response Page

- All requests to old mobile response page are **automatically rerouted** to new mobile response page
- Code checks in Continental, MSI catalogue apps and WeChat Apps should work as before



## Check @ Customer Webpages and Apps

- All customers were informed to use the new JSON interface for their checks and most changed their endpoints already
- Please contact us in case of further questions

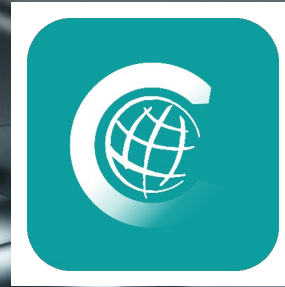
More Information: [www.stopfakebearings.com](http://www.stopfakebearings.com)



A screenshot of the website stopfakebearings.com. The browser's address bar shows the URL. The website has a dark header with the WBA logo and navigation links: "Get help", "Detect fakes", "Protect yourself", "Buy Safely", "Stay informed", "Spread the word", and "English". A white pop-up box on the left contains the text "Recognize fake bearings in just seconds:" and a "Download our app now" button. The main content area features a large, 3D-rendered image of a bearing with the text "Stop fake bearings" overlaid in white. A white circular icon with a downward arrow is positioned below the text.



WBACheck is available for download from the relevant app stores and by using WeChat in China.



WBA Check



WeChat  
Mini-Program

# One measure: WBA check App Bearing Authentication System



[Get help](#)

[Detect fakes](#)

[Protect yourself](#)

[Buy Safely](#)

[Stay informed](#)

[Spread the word](#)

[🇬🇧 English](#)

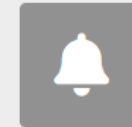
Activate the app, and scan the code on the bearing's packaging. You'll get a response from the app immediately showing one of these icons:



The code is correct and is contained in the manufacturer's database.



Caution: the code is known but has been scanned numerous times. To be on the safe side, follow the manufacturer's recommendation in the response.



Warning: this is an unknown code. The bearing is a suspected fake and must not be used under any circumstances without confirming with the manufacturer. Follow the manufacturer's recommendation in the response.



# One measure: WBA check App Bearing Authentication System




## Examples of manufacturers' validation results

Validation Result

# SKF

Authenticity Check



(01)07316576681462(21)GBFSGGSXZQ

Scan successful.  
This code is a valid SKF code.


2018-09-18 10:21

Exit


Back

Validation Result

# Koyo



Authenticity Check



jtekt/  
01/04549250224706/21/19KHA7989BJAGCD6LtFBqHE

The code of JTEKT you checked is valid, but the number of scans exceeded the allowed limit. This might be a faked product.

2019-07-01 14:46

Report Counterfeit

Learn more about KOYO bearings


Exit

Back

Validation Result

# TIMKEN

Authenticity Check



TKR12456371891123678

Not a valid Timken QR code. This product may be counterfeit. Contact your authorized Timken distributor for assistance confirming authenticity.

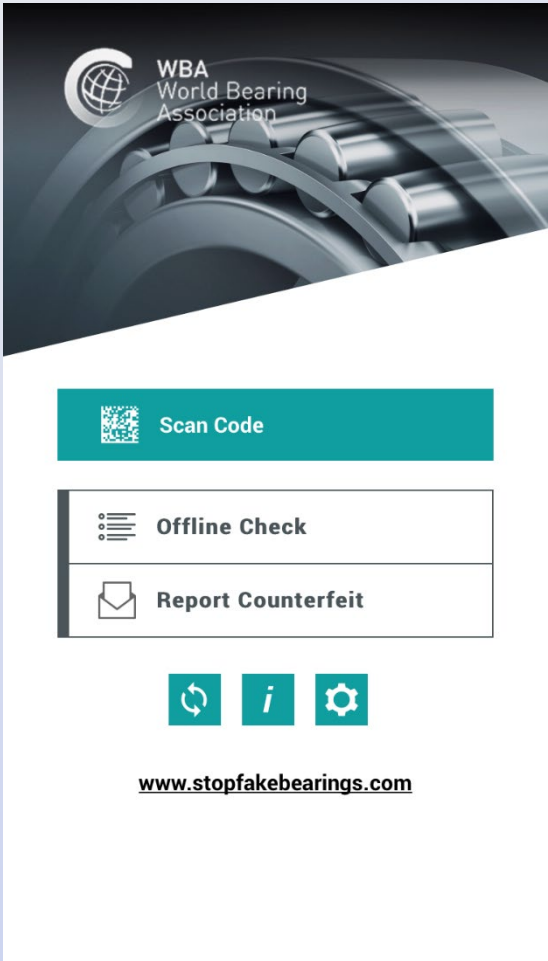
2019-06-26 08:22

Report Counterfeit

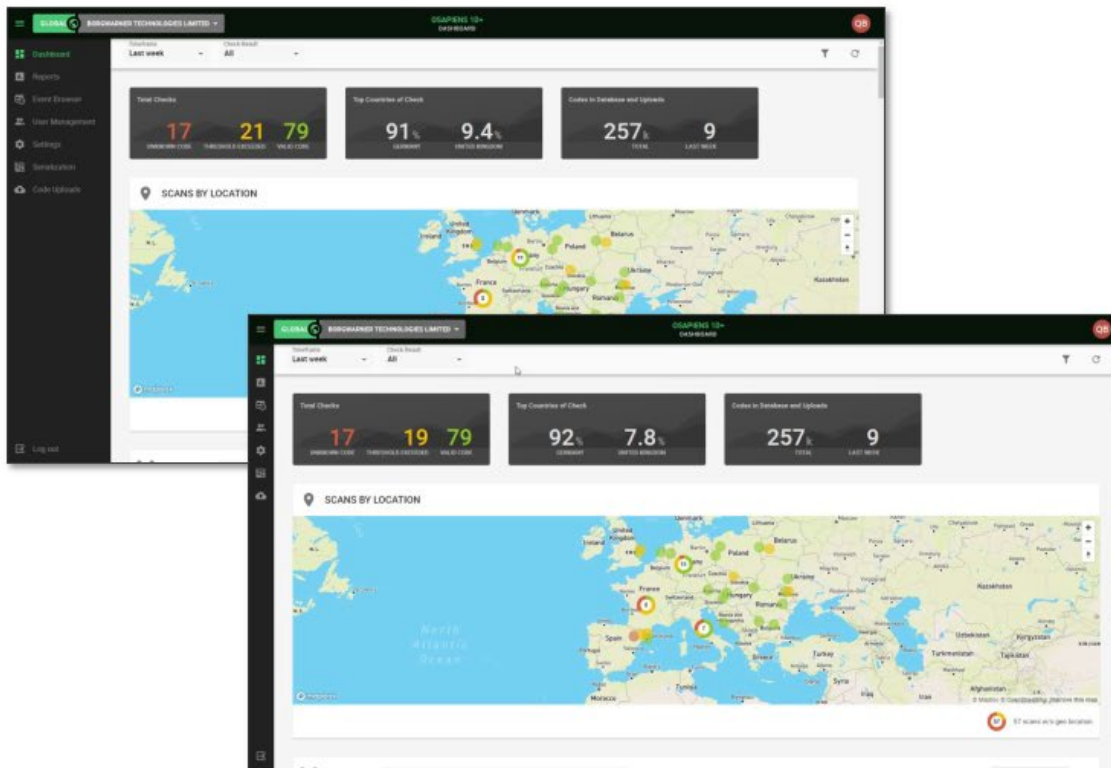
Exit

Back

# Demo




# Information management Portal Dashboard



## General GUI elements

- Side menu can be minimized/expanded via 
- Organization filter on top of the page

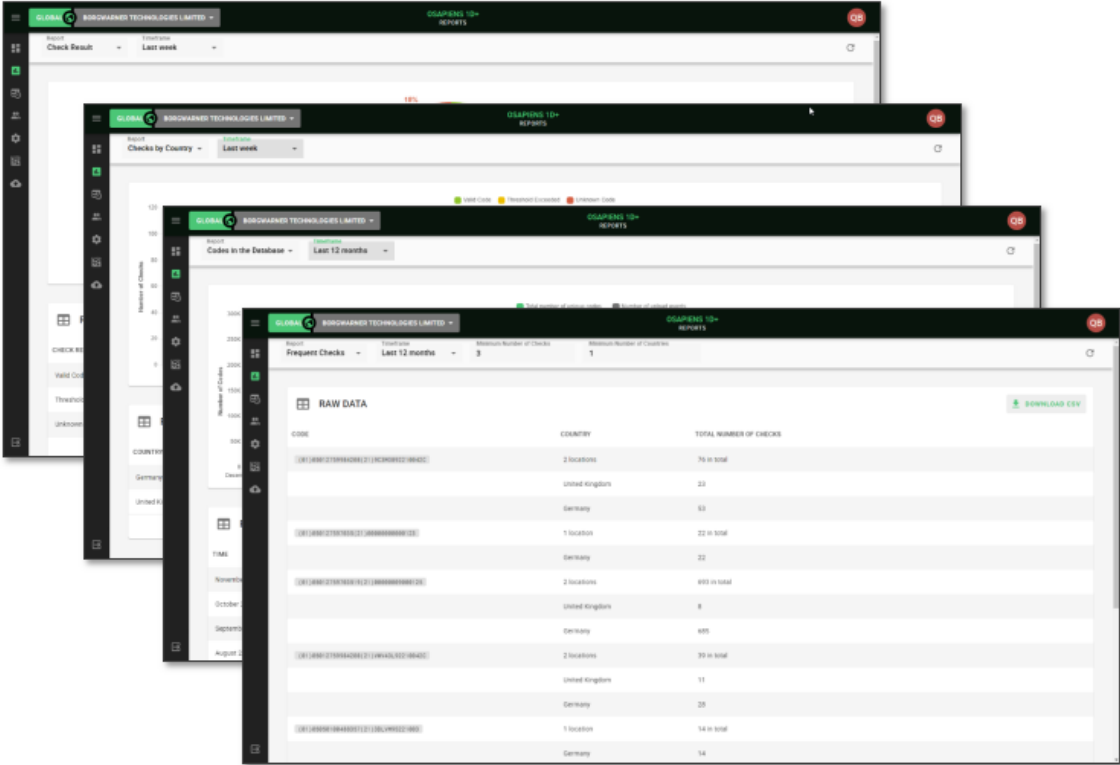
## Dashboard filter

- Default filter Timeframe & Check Result
- Activation of other filters via  and 

## Widgets

- **Total Checks:** all checks divided into **green** (=VALID CODE), **yellow** (=THRESHOLD EXCEEDED) and **red** (=UNKNOWN CODE)
- **Top Countries of Checks:** three countries where most of the checks took place
- **Codes in Database and Uploads:** total number of unique codes and uploads (might be duplicates)

# Possible Reports



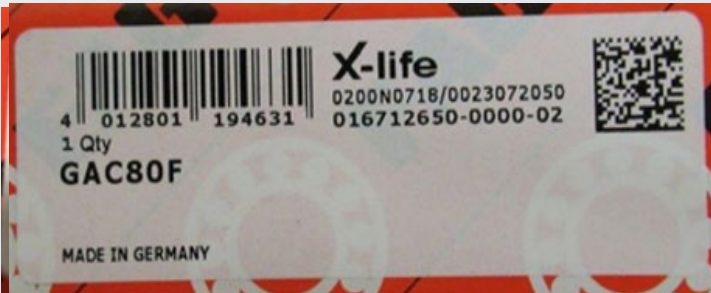
## General behavior

- Dropdown to select the **report type**
- Calendar control to select the **timeframe** (custom timeframe also possible!)
- Display of a **chart** and a **table** for each report
- **Download as CSV** via [DOWNLOAD CSV](#)

## Report types

- **Check Results:** doughnut chart with all checks divided into **green, yellow and red**
- **Checks by Country:** bar chart showing how many checks were done where
- **Codes in Database:** line chart showing the total number of unique codes in the database and number of uploaded codes
- **Frequent Checks:** table with codes checked more than X times in Y different countries (special filters on top of the page, shows only codes that were at least checked 10 times overall!)

# Copied code, and now ...?



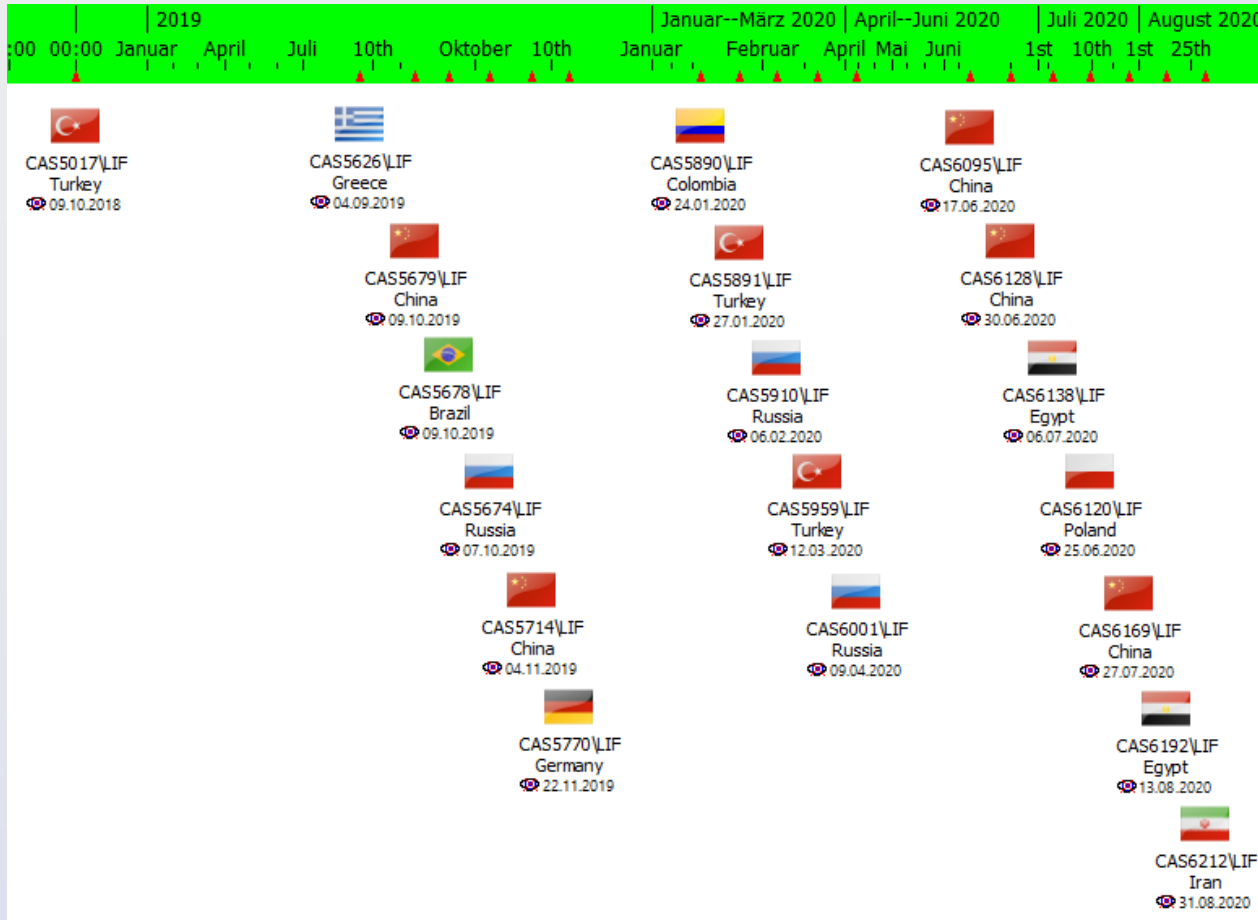
Identical code applied  
on two different labels

Identified as  
counterfeit



Central  
Database





Numerous different requests from around the world for the same code trigger investigations by the Brand Protection Team

This helps to understand the supply chain of counterfeiters

## Short summary: Possible added value



### Customer loyalty program

#### Advantages

- Digital customer loyalty through rewards
- Increase transparency on the customer side
- Possibility of direct communication with the customer
- Platform for cross-selling and marketing activities



### Tracking of relevant events

#### Advantages

- Increased transparency over the entire life cycle
- Basis for future analytics applications to optimize own processes
- Better understanding of supply chain issues



### Provision of further product data

#### Advantages

- Positioning of the own company as an innovator
- Customer loyalty through relevant additional services
- Digitization of analog products - "Make your product smart".

## Feedback from e.g. Law Enforcement Bodies

- WCO cap meeting (Counterfeiting and Piracy group): Very helpful that this is an industry solution which can be used for all participants.
- Thai customs: App is interesting and userfriendly, it is useful and easy to use.
- MOST (Ministry of Science and Technology) and DMS (Directorate of Market Surveillance), Vietnam: very useful
- ISO group (ISO TC292 WG4): Good approach which is inline with the current developments

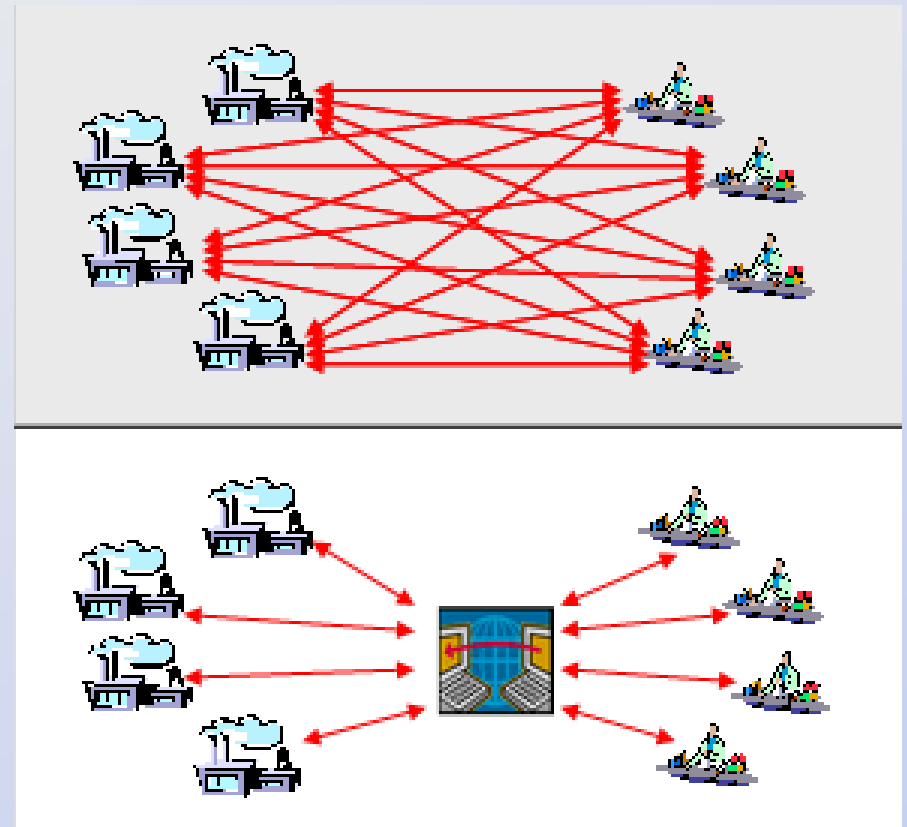






## Time for cooperation?

- Same system shared by many manufacturers will simplify processes for the customer and lead to better reception.
- Any interested party is invited to discuss possible cooperation with WBA and its service provider.





## **Do you have further questions?**

Please contact

Ingrid Bichelmeir-Böhn, Schaeffler AG

[Ingrid.Bichelmeir@schaeffler.com](mailto:Ingrid.Bichelmeir@schaeffler.com)

Tel.: +49 9132 823019

Sylvia Grohmann-Mundschenk, FEBMA / WBA

[sylvia.grohmann@vdma.org](mailto:sylvia.grohmann@vdma.org)

Tel.: +49 69 6603 1319

# **Thank you very much!**