

## Market Survey Questionnaire

### Identification, Traceability and Digital Geolocation of Objects

1. **Purpose of the questionnaire**
2. **The questionnaire to be completed**
3. **Example of a completed questionnaire**

#### 1) Purpose of the questionnaire

The French National RFID Centre (CNR RFID) is leading a study to perform a comprehensive survey of applications in identification, traceability and geolocation, associated with the following six themes:

- a. **Containers:** boxes, trays, and all other kinds of container
- b. **Commodities:** materials that age and need monitoring (such as paint, carbon fibre, etc.)
- c. **Industrial equipment:** test beds, industrial machinery, heavy lifting equipment (slings, jacks, etc.)
- d. **Support equipment:** ground-based equipment (generators, steps, vehicles in the widest sense, etc.)
- e. **Tools:** hand tools (for asset management, FOD, inventory, etc.) including tools subject to metrology
- f. **Onboard Equipment:** equipment with certification, safety, maintenance or configuration requirements.

In this context, all identification and traceability technologies will be taken into account, with special focus on RF/contactless technologies, especially RFID.

Please complete one questionnaire per project theme, regardless of the Sector (such as Aeronautics, Space, Transport or Energy) in which you work, and for each of your projects covered by these themes.

Thank you for your help.

**Results of the study:** Following this study, only those aspects classed as “Public” will be disclosed to our members and to contributing parties.

## 2) The questionnaire

Market Survey Questionnaire			
Identification, Traceability and Digital Geolocation of Objects			
<b>Your Company</b>			
Company name			
Address			
<b>Project contact person</b>			
Surname		First name	
Landline		Mobile	
Email address			
<b>Your project</b>			
Confidentiality level		<input type="checkbox"/> Public (Distributed to all) <input type="checkbox"/> Restricted (Distributed only to the ITGDO Programme group) <input type="checkbox"/> Anonymous (Distributed anonymously) <input type="checkbox"/> Confidential (Not distributed - only CNRFID knows the names)	
Project title or name			
Theme(s) covered		<input type="checkbox"/> Containers <input type="checkbox"/> Commodities <input type="checkbox"/> Industrial equipment <input type="checkbox"/> Support equipment <input type="checkbox"/> Tools <input type="checkbox"/> Onboard equipment	
Project type		<input type="checkbox"/> POC / pilot	<input type="checkbox"/> Completed - date: <input type="text"/> <input type="checkbox"/> Underway <input type="checkbox"/> Future - date: <input type="text"/>
		<input type="checkbox"/> PROJECT	<input type="checkbox"/> Pre-project underway <input type="checkbox"/> In deployment <input type="checkbox"/> Deployed - date: <input type="text"/>
		<input type="checkbox"/> Internal project only <input type="checkbox"/> Project involving suppliers and/or clients	
Project area(s)		<input type="checkbox"/> France <input type="checkbox"/> Europe <input type="checkbox"/> Other: <input type="text"/>	
Project aim(s) <i>10 lines maximum</i>			

Project requirement(s) <i>6 lines maximum</i>		
Project constraint(s) <i>6 lines maximum</i>		
Solution(s) implemented <i>6 lines maximum</i>		
Provider(s) used <i>6 lines maximum</i>		
Explanation / comments on the technical solutions adopted <i>6 lines maximum</i>		
Comments on operational experience / achievement of goals <i>10 lines maximum</i>		
<b>Technologies used</b>		
Identification systems (Tags, etc.)	<input type="checkbox"/> 1D barcodes <input type="checkbox"/> 2D barcodes <input type="checkbox"/> RFID <input type="checkbox"/> Other technology – please specify: <input type="text"/>	
	If RFID	<input type="checkbox"/> Active <input type="checkbox"/> Passive <input type="checkbox"/> Battery assisted
		<input type="checkbox"/> LF <input type="checkbox"/> HF <input type="checkbox"/> NFC
		<input type="checkbox"/> UHF (frequencies?): <input type="text"/>

		<input type="checkbox"/> SHF								
	<b>Special constraints</b>	<input type="checkbox"/> Temp. <input type="checkbox"/> Metal <input type="checkbox"/> Vibrations <input type="checkbox"/> ATEX <input type="checkbox"/> Humidity <input type="checkbox"/> Other – please specify: <input type="text"/>								
	<b>Standards used</b>	<input type="checkbox"/> ISO <input type="checkbox"/> EPC <input type="checkbox"/> IEEE 802.15.4								
	<b>Data encoding</b>	<input type="checkbox"/> Proprietary <input type="checkbox"/> GS1 Standard <input type="checkbox"/> Other(s) – please specify: <input type="text"/>								
	<b>Project volume by type (Barcode, RFID, etc.)</b>	<table border="1"> <tr> <td><input type="checkbox"/> <b>1D barcodes</b></td><td> <input type="checkbox"/> Q &lt; 1000  <input type="checkbox"/> 1000 &lt; Q &lt; 10000  <input type="checkbox"/> Q &gt; 10000         </td></tr> <tr> <td><input type="checkbox"/> <b>2D barcodes</b></td><td> <input type="checkbox"/> Q &lt; 1000  <input type="checkbox"/> 1000 &lt; Q &lt; 10000  <input type="checkbox"/> Q &gt; 10000         </td></tr> <tr> <td><input type="checkbox"/> <b>RFID</b></td><td> <input type="checkbox"/> Q &lt; 1000  <input type="checkbox"/> 1000 &lt; Q &lt; 10000  <input type="checkbox"/> Q &gt; 10000         </td></tr> <tr> <td><input type="checkbox"/> <b>Other technology</b></td><td> <input type="checkbox"/> Q &lt; 1000  <input type="checkbox"/> 1000 &lt; Q &lt; 10000  <input type="checkbox"/> Q &gt; 10000         </td></tr> </table>		<input type="checkbox"/> <b>1D barcodes</b>	<input type="checkbox"/> Q < 1000 <input type="checkbox"/> 1000 < Q < 10000 <input type="checkbox"/> Q > 10000	<input type="checkbox"/> <b>2D barcodes</b>	<input type="checkbox"/> Q < 1000 <input type="checkbox"/> 1000 < Q < 10000 <input type="checkbox"/> Q > 10000	<input type="checkbox"/> <b>RFID</b>	<input type="checkbox"/> Q < 1000 <input type="checkbox"/> 1000 < Q < 10000 <input type="checkbox"/> Q > 10000	<input type="checkbox"/> <b>Other technology</b>
<input type="checkbox"/> <b>1D barcodes</b>	<input type="checkbox"/> Q < 1000 <input type="checkbox"/> 1000 < Q < 10000 <input type="checkbox"/> Q > 10000									
<input type="checkbox"/> <b>2D barcodes</b>	<input type="checkbox"/> Q < 1000 <input type="checkbox"/> 1000 < Q < 10000 <input type="checkbox"/> Q > 10000									
<input type="checkbox"/> <b>RFID</b>	<input type="checkbox"/> Q < 1000 <input type="checkbox"/> 1000 < Q < 10000 <input type="checkbox"/> Q > 10000									
<input type="checkbox"/> <b>Other technology</b>	<input type="checkbox"/> Q < 1000 <input type="checkbox"/> 1000 < Q < 10000 <input type="checkbox"/> Q > 10000									
<b>Reader(s)</b> Type, type of connection to IT system and number of reader points	<input type="checkbox"/> <b>Portable Reader</b>	<b>Connection type</b> <input type="checkbox"/> Docking station <input type="checkbox"/> Wi-Fi <input type="checkbox"/> Bluetooth <input type="checkbox"/> Ethernet <input type="checkbox"/> GPRS <input type="checkbox"/> Other(s) – please specify: <input type="text"/>	<b>Number</b> <input type="checkbox"/> Q < 10 <input type="checkbox"/> 10 < Q < 25 <input type="checkbox"/> Q > 25 <input type="checkbox"/> or exact number: <input type="text"/>							
	<input type="checkbox"/> <b>Fixed Reader</b>	<b>Connection type</b> <input type="checkbox"/> Docking station <input type="checkbox"/> Wi-Fi <input type="checkbox"/> Bluetooth <input type="checkbox"/> Ethernet <input type="checkbox"/> GPRS <input type="checkbox"/> Other(s) – please specify: <input type="text"/>	<b>Number</b> <input type="checkbox"/> Q < 10 <input type="checkbox"/> 10 < Q < 25 <input type="checkbox"/> Q > 25 <input type="checkbox"/> or exact number: <input type="text"/>							
	<input type="checkbox"/> <b>Gate System</b>	<b>Connection type</b> <input type="checkbox"/> Docking station <input type="checkbox"/> Wi-Fi <input type="checkbox"/> Bluetooth <input type="checkbox"/> Ethernet <input type="checkbox"/> GPRS <input type="checkbox"/> Other(s) – please specify: <input type="text"/>	<b>Number</b> <input type="checkbox"/> Q < 10 <input type="checkbox"/> 10 < Q < 25 <input type="checkbox"/> Q > 25 <input type="checkbox"/> or exact number: <input type="text"/>							

	<input type="checkbox"/> <b>Tunnel Scanner</b>	<b>Connection type</b> <input type="checkbox"/> Docking station <input type="checkbox"/> Wi-Fi <input type="checkbox"/> Bluetooth <input type="checkbox"/> Ethernet <input type="checkbox"/> GPRS <input type="checkbox"/> Other(s) – please specify: <input type="text"/>	<b>Number</b> <input type="checkbox"/> Q < 10 <input type="checkbox"/> 10 < Q < 25 <input type="checkbox"/> Q > 25 <input type="checkbox"/> or exact number: <input type="text"/>
	<input type="checkbox"/> <b>Other reader(s) - please specify:</b> <input type="text"/>	<b>Connection type</b> <input type="checkbox"/> Docking station <input type="checkbox"/> Wi-Fi <input type="checkbox"/> Bluetooth <input type="checkbox"/> Ethernet <input type="checkbox"/> GPRS <input type="checkbox"/> Other(s) – please specify: <input type="text"/>	<b>Number</b> <input type="checkbox"/> Q < 10 <input type="checkbox"/> 10 < Q < 25 <input type="checkbox"/> Q > 25 <input type="checkbox"/> or exact number: <input type="text"/>
<b>Middleware/ ERP interface software</b>	<input type="checkbox"/> In-house software <input type="checkbox"/> Commercial ready-to-use software – please specify: <input type="text"/>		
<b>ERP software / business application</b>	<input type="checkbox"/> In-house software <input type="checkbox"/> Commercial ready-to-use software – please specify: <input type="text"/>		

### 3) Example of a completed questionnaire

Market Survey Questionnaire			
Identification, Traceability and Digital Geolocation of Objects			
<b>Your Company</b>			
Company name	MY COMPANY		
Address	26000 VALENCE		
<b>Project contact person</b>			
Surname	BAELDE	First name	Guillaume
Landline	+33 (0)4 75 75 98 97	Mobile	+33 (0)6 42 22 09 89
Email address	<a href="mailto:gbaelde@centrenational-rfid.com">gbaelde@centrenational-rfid.com</a>		
<b>Your project</b>			
Confidentiality level	<input type="checkbox"/> Public (Distributed to all) <input checked="" type="checkbox"/> Restricted (Distributed only to the ITGDO Programme group) <input type="checkbox"/> Anonymous (Distributed anonymously) <input type="checkbox"/> Confidential (Not distributed - only CNRFID knows the names)		
Project title or name	PIPE 1		
Theme(s) covered	<input type="checkbox"/> Containers <input type="checkbox"/> Commodities <input type="checkbox"/> Industrial equipment <input type="checkbox"/> Support equipment <input checked="" type="checkbox"/> Tools <input type="checkbox"/> Onboard equipment		
Project type	<input type="checkbox"/> <b>POC / pilot</b>	<input type="checkbox"/> Completed - date: / / <input type="checkbox"/> Underway <input type="checkbox"/> Future - date: / /	
	<input checked="" type="checkbox"/> <b>PROJECT</b>	<input type="checkbox"/> Pre-project underway <input type="checkbox"/> In deployment <input checked="" type="checkbox"/> Deployed - date: 20/06/2014	
	<input type="checkbox"/> Internal project only <input checked="" type="checkbox"/> Project involving suppliers and/or clients		
Project area(s)	<input type="checkbox"/> France <input type="checkbox"/> Europe <input checked="" type="checkbox"/> Other: Rest of world		
Project aim(s) <i>10 lines maximum</i>	<ul style="list-style-type: none"> <li>- Monitor and Track steel borehole pipes throughout their life-cycle: manufacture, distribution, deployment, inspections,</li> <li>- Improve pipe management</li> <li>- Better Customer Service</li> </ul>		

<b>Project requirement(s)</b> <i>6 lines maximum</i>	<ul style="list-style-type: none"> <li>- Tags for Metal Supports</li> <li>- Unique identification</li> <li>- Non-visual remote detection</li> <li>- Multiple reading</li> </ul>	
<b>Project constraint(s)</b> <i>6 lines maximum</i>	<ul style="list-style-type: none"> <li>- Harsh Environment</li> <li>- Temperature Resistance</li> <li>- Resistance to chemicals</li> </ul>	
<b>Solution(s) implemented</b> <i>6 lines maximum</i>	<ul style="list-style-type: none"> <li>- Metal UHF tag inserted after machining the tube; resin embedding</li> <li>- Reading using a PDA IP68 portable terminal</li> <li>- Data dumping on a docking station in the Site Manager's office</li> <li>- Data exchange via satellite link</li> </ul>	
<b>Provider(s) used</b> <i>6 lines maximum</i>	<ul style="list-style-type: none"> <li>- A single worldwide provider: Mybestcompany</li> </ul>	
<b>Explanation / comments on the technical solutions adopted</b> <i>6 lines maximum</i>	<ul style="list-style-type: none"> <li>- The solution needed to be as robust as possible and operate in both on-line and off-line modes (with or without database connection).</li> <li>- The portable reader seemed to be the simplest and most reliable solution. Operating conditions did not allow for installation of a fixed reader with sufficient range.</li> </ul>	
<b>Comments on operational experience / achievement of goals</b> <i>10 lines maximum</i>	<ul style="list-style-type: none"> <li>- The solution was well received by operating staff for whom it significantly reduced manual input tasks, thereby reducing input errors and facilitating monitoring of the installed tubes.</li> <li>- This improved the quality of monitoring and daily reporting which became automated.</li> </ul>	
<b>Technologies used</b>		
<b>Identification systems (Tags, etc.)</b>	<input type="checkbox"/> 1D barcodes <input type="checkbox"/> 2D barcodes <input checked="" type="checkbox"/> RFID <input type="checkbox"/> Other technology – please specify:	
	<b>If RFID</b>	<input type="checkbox"/> Active <input type="checkbox"/> Passive <input type="checkbox"/> Battery assisted
		<input type="checkbox"/> LF <input type="checkbox"/> HF <input type="checkbox"/> NFC <input checked="" type="checkbox"/> UHF (frequencies?):

		<input type="checkbox"/> SHF								
	<b>Special constraints</b>	<input type="checkbox"/> Temp. <input checked="" type="checkbox"/> Metal <input type="checkbox"/> Vibrations <input checked="" type="checkbox"/> ATEX <input checked="" type="checkbox"/> Humidity <input type="checkbox"/> Other – please specify:								
	<b>Standards used</b>	<input checked="" type="checkbox"/> ISO <input type="checkbox"/> EPC <input type="checkbox"/> IEEE 802.15.4								
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	<b>Project volume by type (Barcode, RFID, etc.)</b>	<table border="1"> <tr> <td><input type="checkbox"/> <b>1D barcodes</b></td><td> <input type="checkbox"/> Q &lt; 1000  <input type="checkbox"/> 1000 &lt; Q &lt; 10000  <input type="checkbox"/> Q &gt;10000         </td></tr> <tr> <td><input type="checkbox"/> <b>2D barcodes</b></td><td> <input type="checkbox"/> Q &lt; 1000  <input type="checkbox"/> 1000 &lt; Q &lt; 10000  <input type="checkbox"/> Q &gt;10000         </td></tr> <tr> <td><input checked="" type="checkbox"/> <b>RFID</b></td><td> <input type="checkbox"/> Q &lt; 1000  <input type="checkbox"/> 1000 &lt; Q &lt; 10000  <input checked="" type="checkbox"/> Q &gt;10000         </td></tr> <tr> <td><input type="checkbox"/> <b>Other technology</b></td><td> <input type="checkbox"/> Q &lt; 1000  <input type="checkbox"/> 1000 &lt; Q &lt; 10000  <input type="checkbox"/> Q &gt;10000         </td></tr> </table>		<input type="checkbox"/> <b>1D barcodes</b>	<input type="checkbox"/> Q < 1000 <input type="checkbox"/> 1000 < Q < 10000 <input type="checkbox"/> Q >10000	<input type="checkbox"/> <b>2D barcodes</b>	<input type="checkbox"/> Q < 1000 <input type="checkbox"/> 1000 < Q < 10000 <input type="checkbox"/> Q >10000	<input checked="" type="checkbox"/> <b>RFID</b>	<input type="checkbox"/> Q < 1000 <input type="checkbox"/> 1000 < Q < 10000 <input checked="" type="checkbox"/> Q >10000	<input type="checkbox"/> <b>Other technology</b>
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<input type="checkbox"/> <b>Other technology</b>	<input type="checkbox"/> Q < 1000 <input type="checkbox"/> 1000 < Q < 10000 <input type="checkbox"/> Q >10000									
<b>Reader(s)</b> Type, type of connection to IT system and number of reader points	<input checked="" type="checkbox"/> <b>Portable Reader</b>	<b>Connection type</b> <input checked="" type="checkbox"/> Docking station <input type="checkbox"/> Wi-Fi <input type="checkbox"/> Bluetooth <input type="checkbox"/> Ethernet <input type="checkbox"/> GPRS <input checked="" type="checkbox"/> Other(s) – please specify: Satellite.	<b>Number</b> <input type="checkbox"/> Q < 10 <input type="checkbox"/> 10 < Q < 25 <input type="checkbox"/> Q >25 <input checked="" type="checkbox"/> or exact number: 125							
	<input type="checkbox"/> <b>Fixed Reader</b>	<b>Connection type</b> <input type="checkbox"/> Docking station <input type="checkbox"/> Wi-Fi <input type="checkbox"/> Bluetooth <input type="checkbox"/> Ethernet <input type="checkbox"/> GPRS <input type="checkbox"/> Other(s) – please specify:	<b>Number</b> <input type="checkbox"/> Q < 10 <input type="checkbox"/> 10 < Q < 25 <input type="checkbox"/> Q >25 <input type="checkbox"/> or exact number:							
	<input type="checkbox"/> <b>Gate System</b>	<b>Connection type</b> <input type="checkbox"/> Docking station <input type="checkbox"/> Wi-Fi <input type="checkbox"/> Bluetooth <input type="checkbox"/> Ethernet <input type="checkbox"/> GPRS <input type="checkbox"/> Other(s) – please specify:	<b>Number</b> <input type="checkbox"/> Q < 10 <input type="checkbox"/> 10 < Q < 25 <input type="checkbox"/> Q >25 <input type="checkbox"/> or exact number:							



	<input type="checkbox"/> <b>Tunnel Scanner</b>	<b>Connection type</b> <input type="checkbox"/> Docking station <input type="checkbox"/> Wi-Fi <input type="checkbox"/> Bluetooth <input type="checkbox"/> Ethernet <input type="checkbox"/> GPRS <input type="checkbox"/> Other(s) – please specify:	<b>Number</b> <input type="checkbox"/> Q < 10 <input type="checkbox"/> 10 < Q < 25 <input type="checkbox"/> Q >25 <input type="checkbox"/> or exact number:
	<input type="checkbox"/> <b>Other reader(s) - please specify:</b>	<b>Connection type</b> <input type="checkbox"/> Docking station <input type="checkbox"/> Wi-Fi <input type="checkbox"/> Bluetooth <input type="checkbox"/> Ethernet <input type="checkbox"/> GPRS <input type="checkbox"/> Other(s) – please specify:	<b>Number</b> <input type="checkbox"/> Q < 10 <input type="checkbox"/> 10 < Q < 25 <input type="checkbox"/> Q >25 <input type="checkbox"/> or exact number:
<b>Middleware/ ERP interface software</b>	<input checked="" type="checkbox"/> In-house software <input type="checkbox"/> Commercial ready-to-use software – please specify:		
<b>ERP software / business application</b>	<input type="checkbox"/> In-house software <input checked="" type="checkbox"/> Commercial ready-to-use software – please specify: SAPIPE		