



# Colibri

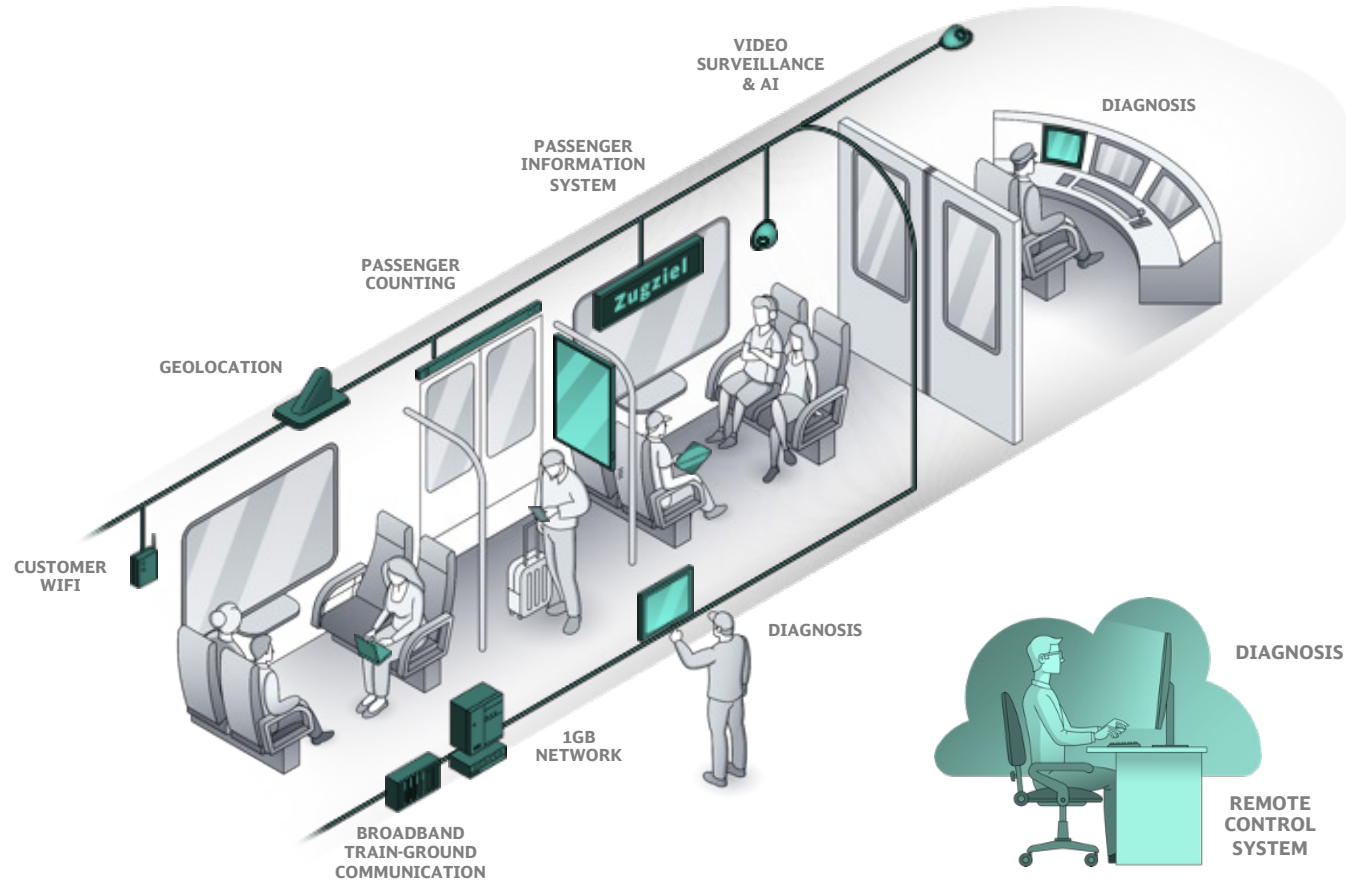
Digital products in your rail vehicle

DB Fahrzeuginstandhaltung GmbH | InnoTrans 2024

# The digital train



## Colibri – Coach Link for Broadband Information Exchange

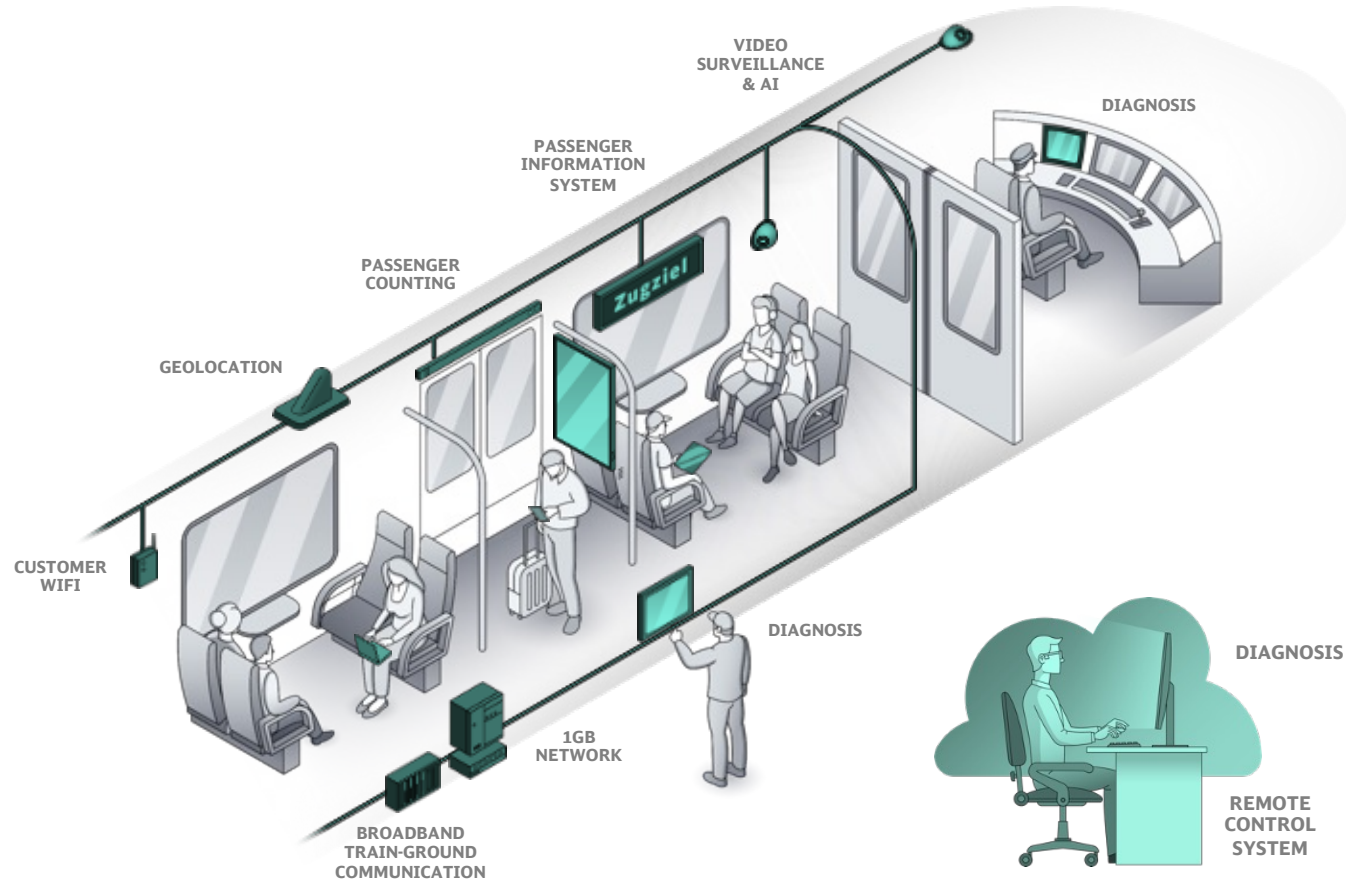


## One step smarter with every module.

- Non-proprietary IT platform for business and passenger applications
- Hardware and software
- Integration in new vehicles
- Support during conversion
- From prototype to fleet production
- Various options for integrating third-party providers

# Our IT platform for you

**Colibri** – **Coach Link** for **Broadband Information Exchange**



**A one-stop shop for smart IT products and services** for rail vehicles and stationary systems.



Colibri development



Internet service provider



SIM management



Colibri platform



IT project management



Kit production



System commissioning



IT-side application management



Kit integration



Obsolescence management



Data collection & processing



Third-party integration

**Markets**



REDESIGN



NEW VEHICLES



STATIONARY SOLUTIONS



# State-of-the-art hardware and software

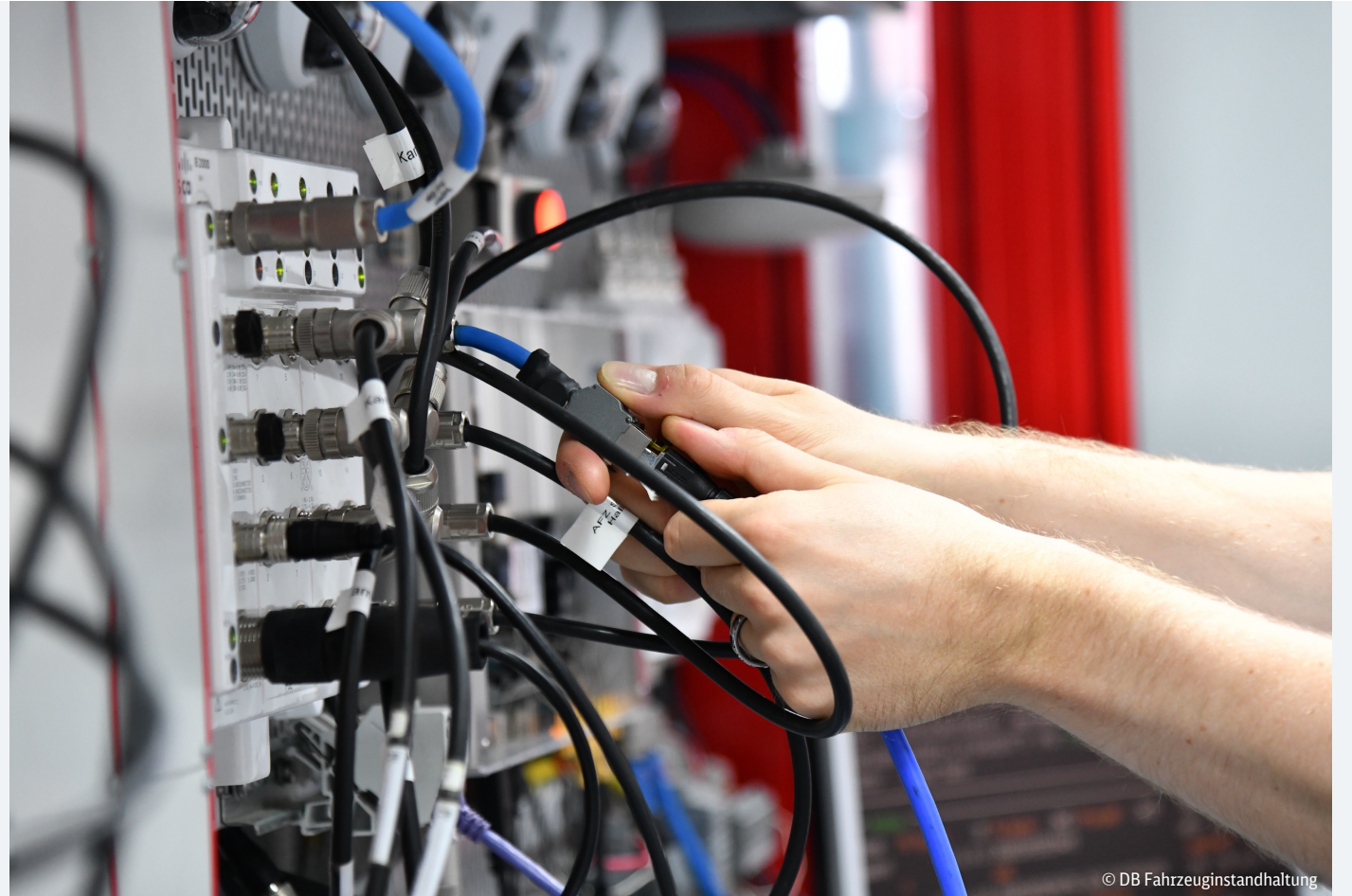


## Hardware:

- Our state-of-the-art hardware architecture is continually being updated.
- New technologies are tested in the in-house innovation lab and integrated into the system following acceptance.

## Software:

- Regular remote updates ensure optimum performance and maintain the necessary levels of IT-security.



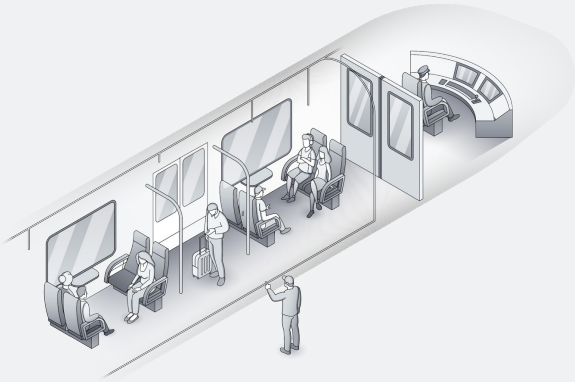
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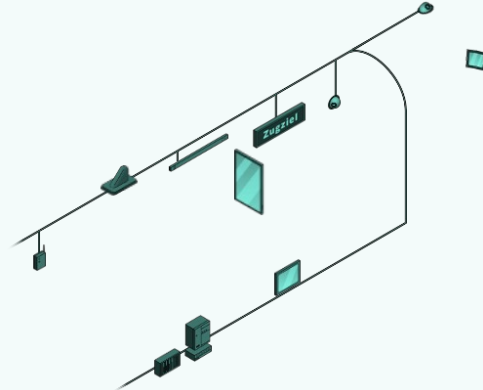
# Our broad service portfolio in a nutshell



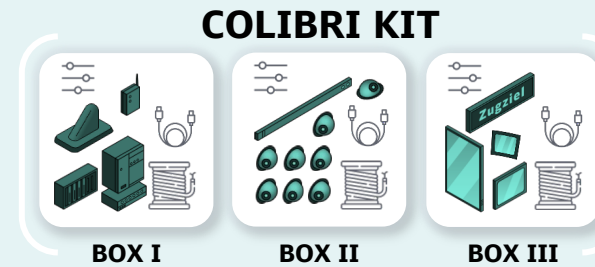
## Installation space inspection using 3D scanning



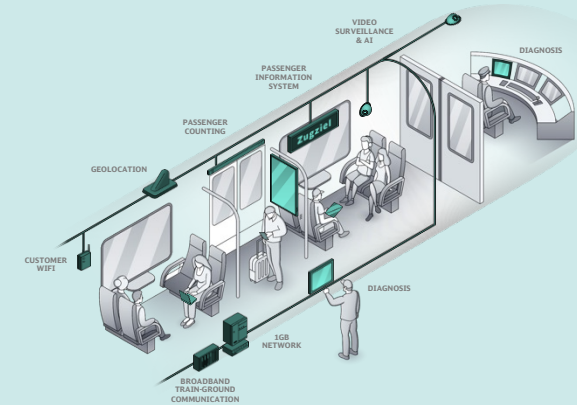
## Engineering & production planning and control



## Kit manufacture & installation



## Use cases



- Inspection of available installation spaces
- Integration planning
- Visualisation using 3D scan data
- Cost estimation & bid preparation

- Concept development for integrating existing or third-party systems
- Design and installation
- Manufacturing documents for kit production
- Laboratory setup (digital twin)
- Work & commissioning instructions
- Quality records

- Cable pre-assembly
- Pre-order picking
  - Ready-to-install subsystems
  - Fasteners
  - Custom packaging for installation
- Pre-assembly of large components on ready-to-install brackets
- Pre- and target configuration of the component software
- Commissioning instructions & tools
- Remote & on-site support for commissioning

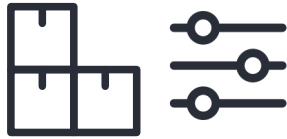
- Scalable systems operation
- System expansions
- Remote systems operation
- Remote corrective maintenance
- Over-the-air updates

# Our material kits for faster availability



# 1

## Kit configuration



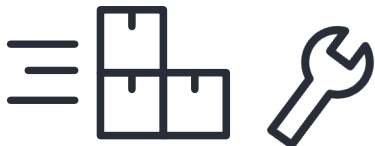
# 2

## Assembly



# 3

## Transport and installation



## Smart rail solutions, delivered quickly

**Colibri is a high-tech product that makes your fleet smarter with every module.**

Our material kits support smart upgrades to your vehicles.

- With individual Colibri component parts assembled to meet your needs
- One-stop shop for faster and smoother processing

## Advantages



- Your one-stop shop
- Fast processing
- Easy installation
- Resource-saving
- Installation by maintenance depot, mobile service or customer's own workshop

# The Colibri product & service portfolio in figures



## Software & service products (on the ground)

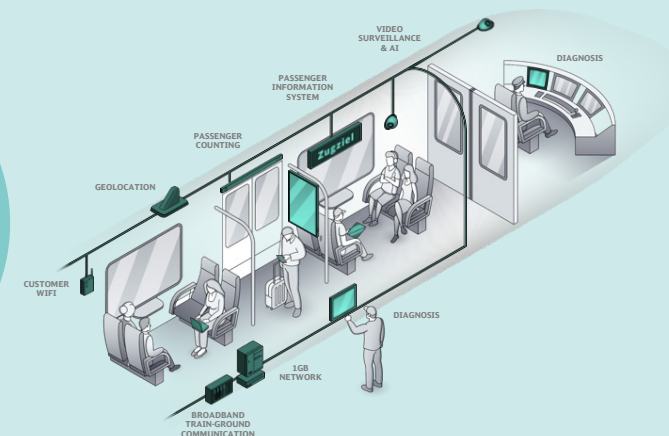
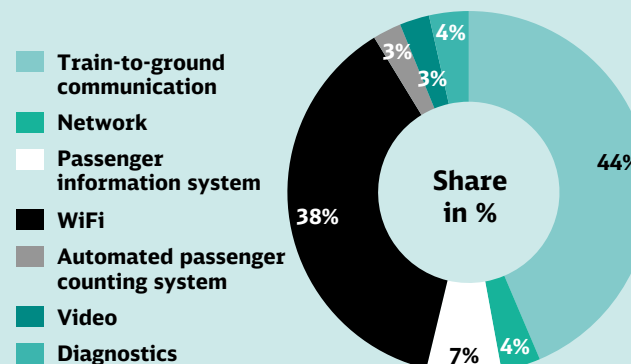
- New software development
- Project management
- Monitoring & reporting system
- SIM & traffic management
- IT-side application management (24/7 or 5/8)
- Mobile service/on-site corrective maintenance
- Remote updates

## Projects in 2023

- Project involvement

 DNSW	 NahSh	 Netz 54	 Rheine-Löhne	 DSD Data Touch Point
 Taunus	 NES	 NOS2	 RSX	 Oberpfalznetze
 EVNO	 Netz 16c	 NTT	 S-Bahn Cologne	 SOB IdeasTrain
 Klimabox	 Netz 18	 OSK	 SBRM 2023	
 LSM	 Netz 5	 REX	 VT 648 SH Ost	

## Hardware products (on the train)








**165**  
Kits installed  
in 2023




IT-side  
application  
management of  
**1,500**  
systems in  
2023

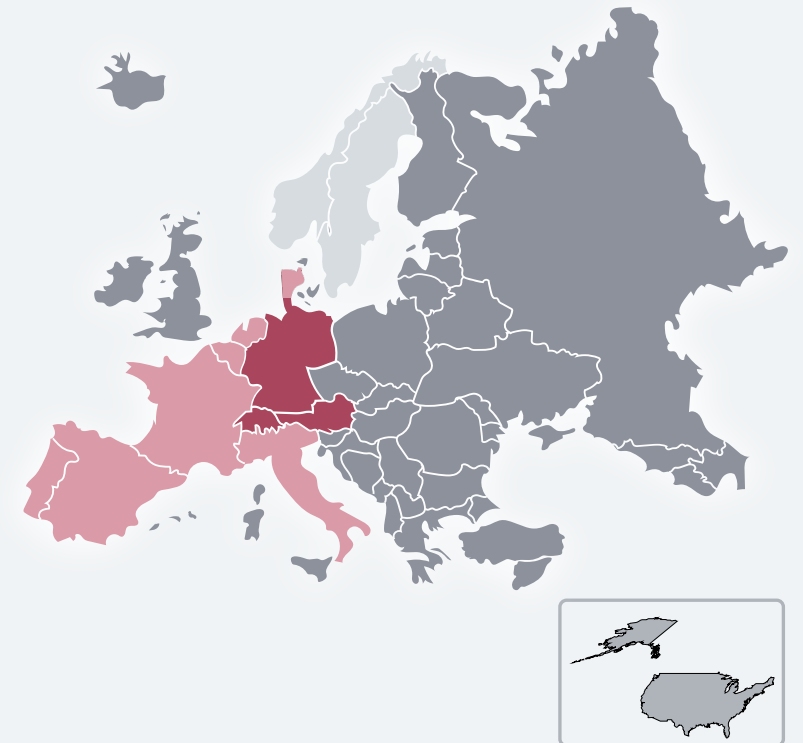


# Colibri targets five markets



	Customers	Products	Services
 <b>REDESIGN</b>	<ul style="list-style-type: none"> <li>• All rail passenger transport companies</li> <li>• All public road transport companies</li> <li>• All long-distance bus service operators</li> </ul>	<ul style="list-style-type: none"> <li>• ISP* only</li> <li>• Colibri kits</li> <li>• Kit installation</li> <li>• Colibri upgrades</li> <li>• IT project management</li> <li>• Obsolescence management</li> </ul>	<ul style="list-style-type: none"> <li>• Colibri platform</li> <li>• ICT-side application management (1<sup>st</sup>-3<sup>rd</sup> level support)</li> <li>• Reporting</li> <li>• Quality of service</li> <li>• Edge management</li> <li>• Performance updating</li> </ul>
 <b>NEW VEHICLES</b>	<ul style="list-style-type: none"> <li>• All rail passenger transport companies</li> <li>• Passenger transport authorities</li> </ul>	<ul style="list-style-type: none"> <li>• ISP* only</li> <li>• Train labs</li> </ul>	<ul style="list-style-type: none"> <li>• Colibri platform</li> <li>• ICT-side application management (1<sup>st</sup>-3<sup>rd</sup> level support)</li> <li>• Reporting</li> <li>• Lab IT-side application management</li> <li>• Sim card management</li> </ul>
 <b>STATIONARY SOLUTIONS</b>	<ul style="list-style-type: none"> <li>• InfraGO</li> <li>• EV charging point operators</li> </ul>	<ul style="list-style-type: none"> <li>• ISP* only (WiFi)</li> <li>• Colibri kits</li> <li>• Kit installation</li> <li>• Colibri upgrades</li> </ul>	<ul style="list-style-type: none"> <li>• ICT-side application management (1<sup>st</sup>-3<sup>rd</sup> level support)</li> <li>• Reporting</li> </ul>
 <b>INNOVATION PROJECTS</b>	<ul style="list-style-type: none"> <li>• DB AG</li> <li>• Mobile network operator</li> </ul>	<ul style="list-style-type: none"> <li>• IT project management</li> <li>• Consulting</li> <li>• System development</li> <li>• Train labs</li> <li>• Testing/support for approvals</li> </ul>	<ul style="list-style-type: none"> <li>• Obsolescence management</li> <li>• Technology development</li> <li>• Component development/sourcing</li> <li>• SW feature development</li> <li>• API development</li> <li>• Colibri platform integration</li> </ul>
 <b>Software as a Service</b>	<ul style="list-style-type: none"> <li>• Rail passenger transport companies</li> <li>• Passenger transport authorities</li> <li>• Public road transport companies &amp;</li> <li>• Long-distance bus service operators</li> <li>• Authorities (e.g. police)</li> <li>• DB AG</li> <li>• Mobile network operator</li> </ul>	<ul style="list-style-type: none"> <li>• Licence-based software deployment</li> <li>• New software development</li> <li>• Standard Colibri API</li> <li>• Database management (incl. cloud services)</li> </ul>	<ul style="list-style-type: none"> <li>• Diagnostic data analysis</li> <li>• ICT training</li> </ul>

-  **Core business**
-  **Secondary markets**
-  **Market enquiries**



\* ISP – Internet service provider



# Further information

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**Colibri**



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