

THE OMAN NATIONAL RAILWAY (ONR) PROJECT



Roberto Liuzza – Project Director

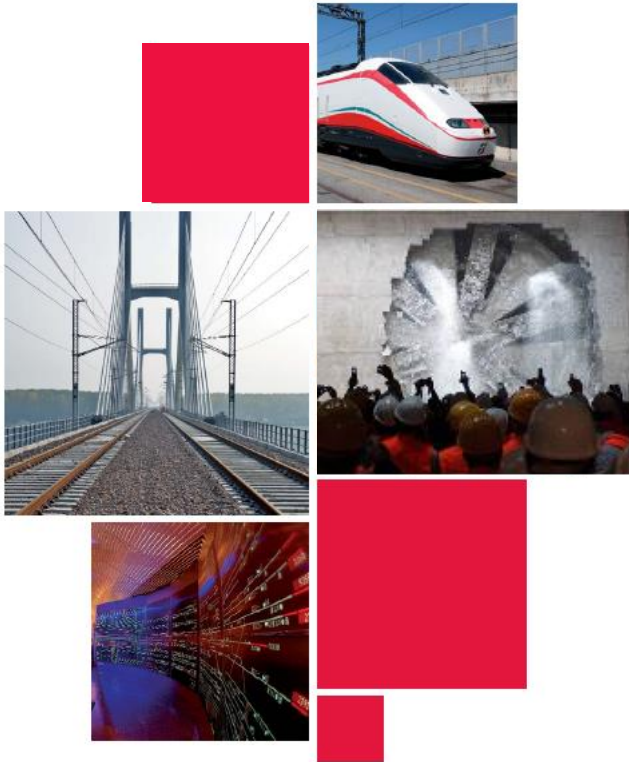
Italferr S.p.A.



Italferr, the **Italian State Railways Group engineering firm**, operates on the Italian and international markets in the field of rail transport engineering.

A highly qualified **staff** and **specialist know-how** coming from the finest engineering traditions give Italferr a **strategic role** in the **modernization and development process of the Italian railway network** and ranks the firm on the **international market**, where it fulfils important roles.

Our figures



- **1,250** highly qualified, **specialist** staff members
- **12 branch offices** around Italy
- **12 branches/offices** overseas
- Estimated production value for 2013: **138 million Euro**
- Investments managed: 73 billion Euro
- Operating in more than **100 construction sites** as **Director** and **Supervisor of Works**
- **580 contracts** currently under management

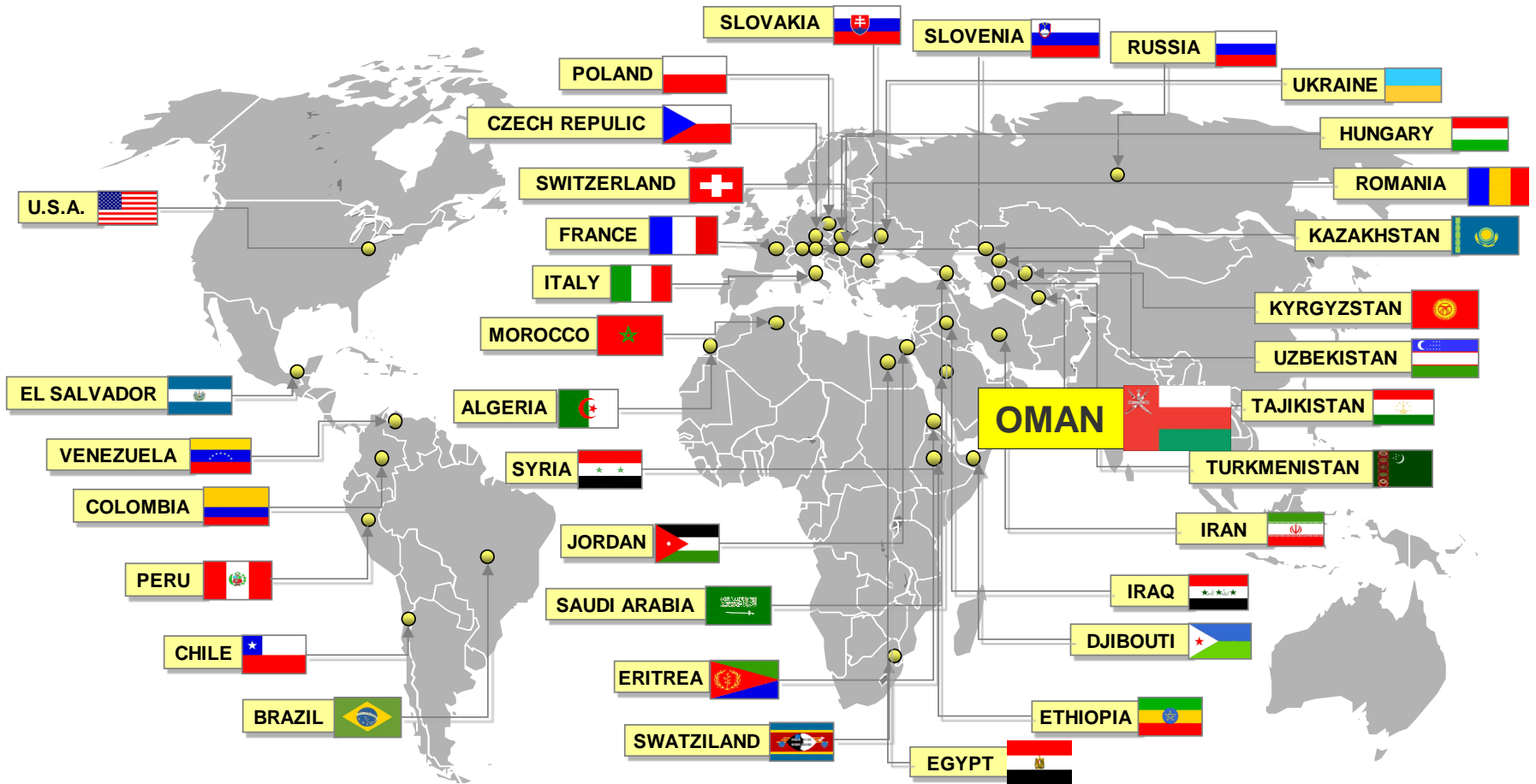
Our services



- Feasibility studies
- Transport development plans
- Costing
- Preliminary, definitive and executive designs
- Validation of plans
- Environmental impact studies
- Competitive bid documentation and procedures
- Project Management
- Integrated Management Systems (QAS)
- Cost planning and control
- Direction of works/Supervision of works
- Testing and commissioning
- Start-up
- Management assistance
- HR training and organizational consultancy services

Italferr around the world

Italferr has run rail projects in more than 60 countries worldwide



The Oman Railway Network

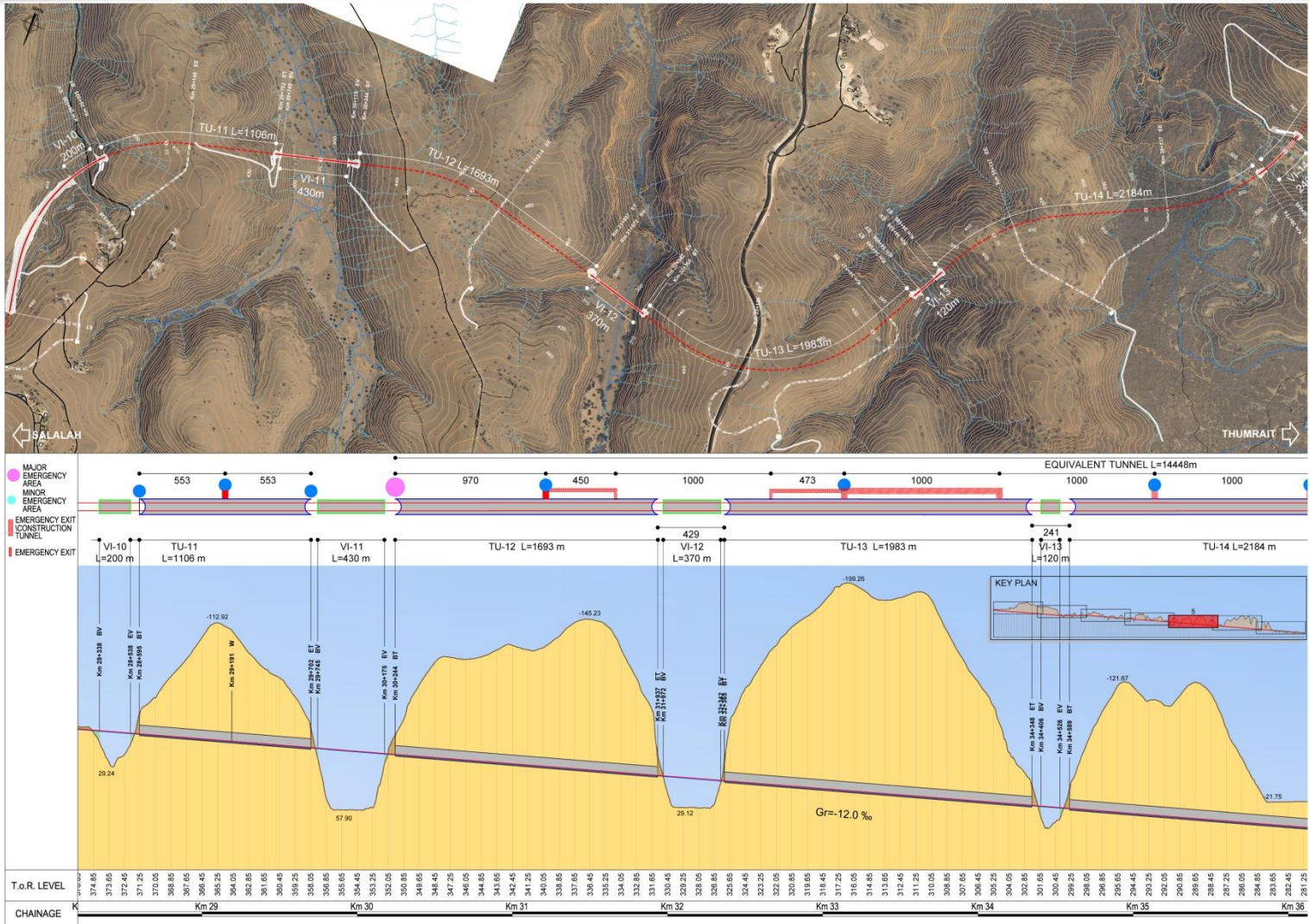


Segm ent	Sector	Sector Description	Approx Length km
1	a	Sohar to UAE Border at Hafeet / Al Ain	135
	b	Al Buraimi Spur	34
	c	Spur to Sohar Railway Yard	38
2	a	Hafeet - Ibri	114
	b	Ibri - Al Dahra economic zone (Fahud)	126
	c	Ibri - Nizwa	160
3	a	Al Dhara economic zone - Al Gabah	116
	b	Al Gabah-Haima	197
	c	Al Gabah - Duqm	175
4	a	Haima - Amal	166
	b	Amal - Thumrayt	220
	c	Thumrayt - Salalah Port	93
5	a	Sohar - Muscat (Al Misfah)	188
	b	Link for Muscat Central Station	18
6	a	Al Misfah - Sinaw	160
7	a	Sinaw - Ibra	91
8	a	Thumrayt - Mazyounah	194
9	a	Sohar Port to UAE Border at Khatmat Milaha	70
		Total	2295

Numbers of Oman National Railway Project

- ❑ Total Length of about 2300 km, divided into 9 Segments linking Omani ports and main economic centres with UAE and the GCC Railway. Future connection to Yemen border is also planned;
- ❑ Double Track non-electrified railway line with Continuous Welded Rail (CWR);
- ❑ Mixed Freight and Passenger traffic;
- ❑ Maximum speed of 120 km/h for freight trains and 220 km/h for passenger trains (corridor design up to 350 km/h);
- ❑ Maximum permissible axle load: 32,4 tons;
- ❑ Design Standards: Arema/International Std;
- ❑ Signaling System based on ERTMS Level 2;
- ❑ Telecommunication System based on GSM-R based.

Alignment Design – Plan Profile



Tunnelling

The Project envisages the necessity of tunneling to overcome the orographic situation of the territory.



STRUCTURES



STRUCTURES



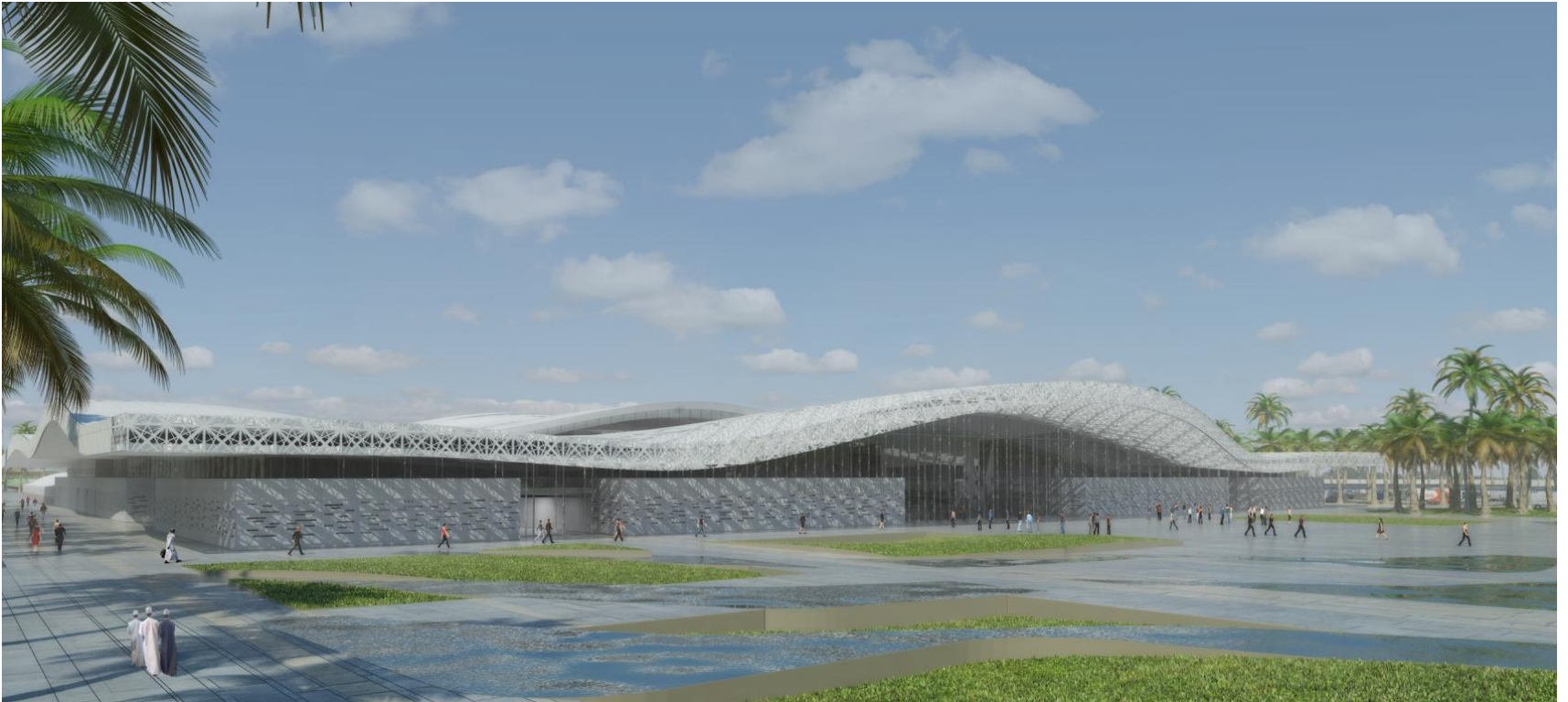
Multiple arch Viaduct



Single arch viaduct

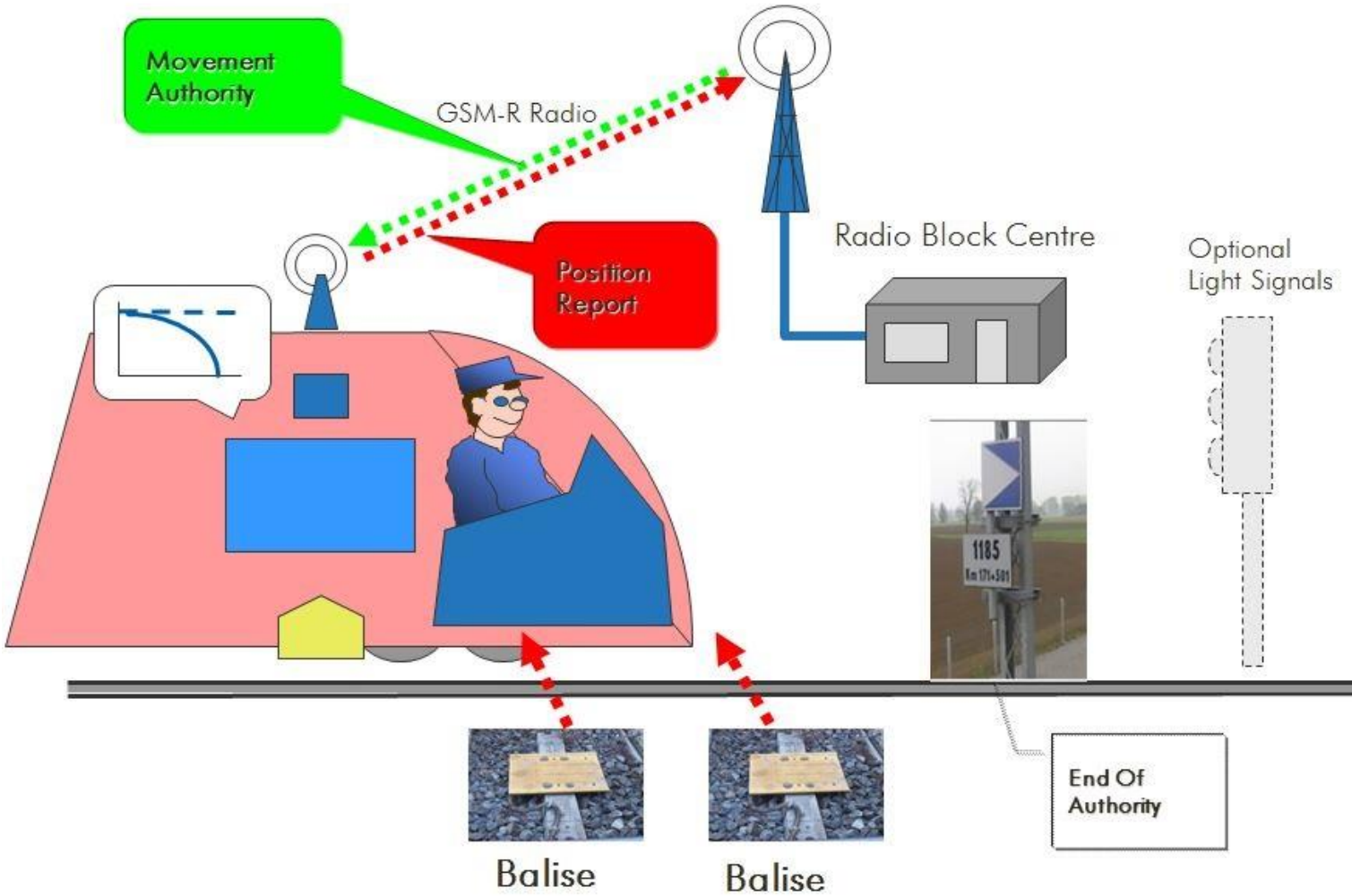


STATIONS



Signaling

Signaling_UNISIG RULES and ERTMS L2 Data flow





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مجموعة شركات سكك الحديد الايطالية