

BALASSAGYARMAT PLANT

Summary



Prysmian
Group

BALASSAGYARMAT, 2019

CEE REGION



	Germany	Danubian	Combined
NET TURNOVER (EUR/MIn)	690	480	1.170
ENERGY Cables (Tons)	105.000	110.000	215.000
OPTICAL Fiber Cables (FKm)	1.200.000	3.000.000	4.100.000
TELECOM Copper Cables (LKm)	1.250.000	670.000	1.920.000
Staff Employees & Management	404	252	656
Workers into the Plants	1.137	1.147	2.284
Total HC	1.541	1.399	2.940

- **29 Legal Entities (21 De + 7 EE)**
- **7 Countries (6 Dom + 1 JV)**
- **10 Production Plants**
- **4 Regional Distribution Centers**
- **6 Languages**
- **5 Currencies**



Prysmian Germany | Geographical Presence



Berlin Office

- Germany Headquarter

Berlin Kopenick Plant

- Signaling + TLC copper

Schwerin Plant

- T&I + PD (BW, LV, MV)

Neumunster Plant

- Harnessing facility for LV Wind Turbine cables

Wuppertal Plant

- Special cables, Automotive

Neustadt Plant

- Special cables

Nurnberg Plant

- MMS

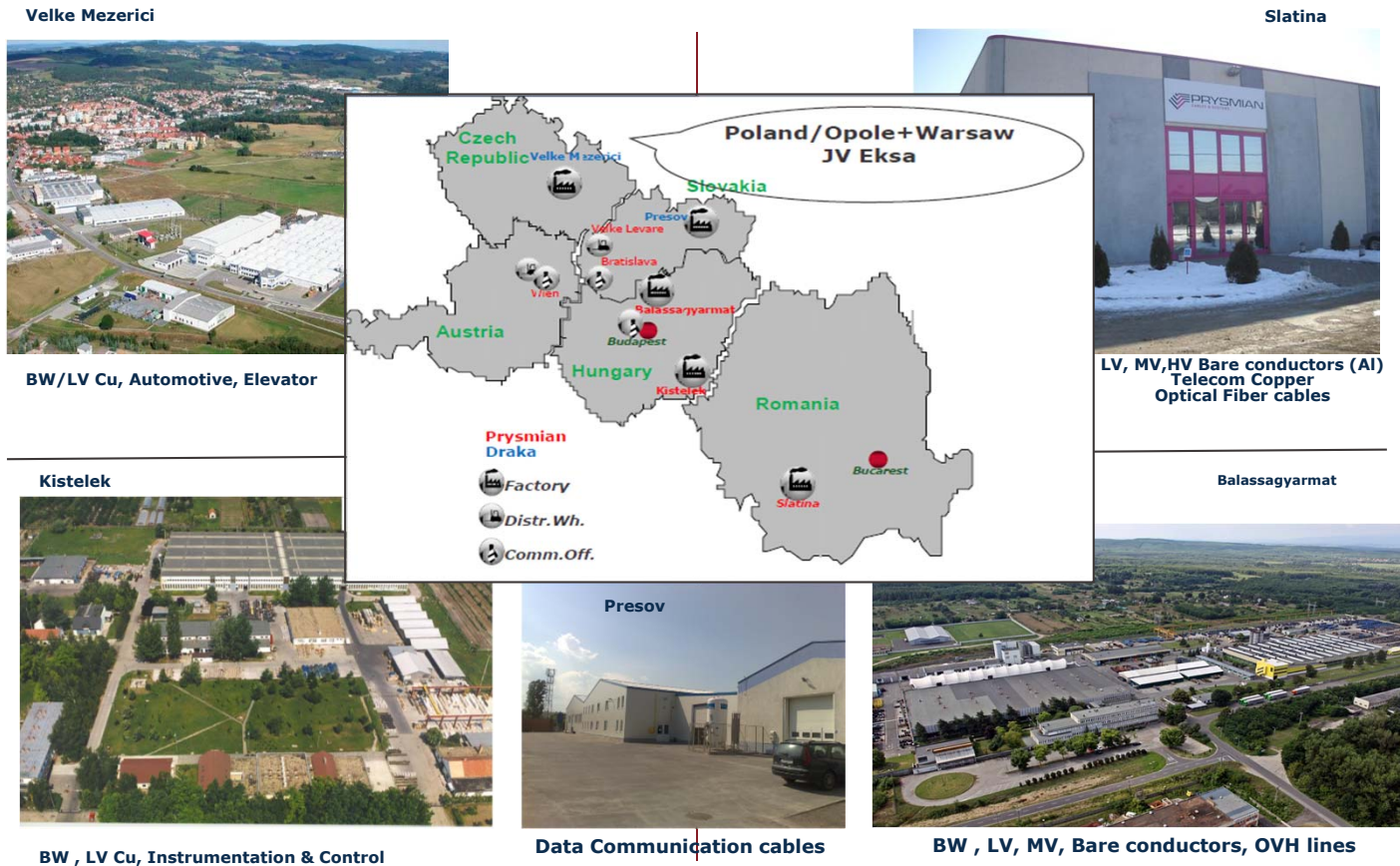
Cologne Office

- MMS sales office

Hamburg Office

- PPL project office

Eastern Europe: Manufacturing Footprint



Human Capital



MAKE IT



Róbert Balogh
Engineering
Manager



Zsombor Busku
Quality Manager

BUILD *the FUTURE*

**Continuous
Improvement**
Tibor Hajdú

PRYSMIAN GROUP MANUFACTURING **ACADEMY**

**Maintenance
Engineer**

(postponed to 2020)

Green **6** Belt

**Process
Engineering
Manager**



**Zsombor
Busku**
Quality
Manager

Balassagyarmat overview

FAST
FORWARD
OPERATIONS



Milestones - Balassagyarmat

- 1968 Establishment of the factory
- 1970 Starting of production (bare overhead conductors)
- 1974 Introduction of the PVC *insulated* power cables
- 1987 Introduction of the silan XLPE insulation technology
- 1993 OEKW (Siemens)
- 1998 Pirelli
- 2003 MV cable production
- 2005 Prysmian Group
- 2006 Introduction of PVC, rubber compounding and BWR production

Systems

- SAP (**S**ystems, **A**pplications & **P**roductions in Data Processing) - Enterprise system
- Qlickview
- T-Method:
 - Documentation modul
 - Maintenance modul
 - Energetics modul
- HYDRA (MES System):
 - Scale system (under implementation)
- Camera System

Balassagyarmat Factory – Overall Information

Properties:

- Factory total area: 265.546 m² (147.437 m² fenced, 34.065 m² covered)

Employees:

- Total number of BC: 230.
- Additional people for permanently outsourced activities (loading, packaging, scrap separation etc.), at the site.

Production:

- 4 shifts, 7 days

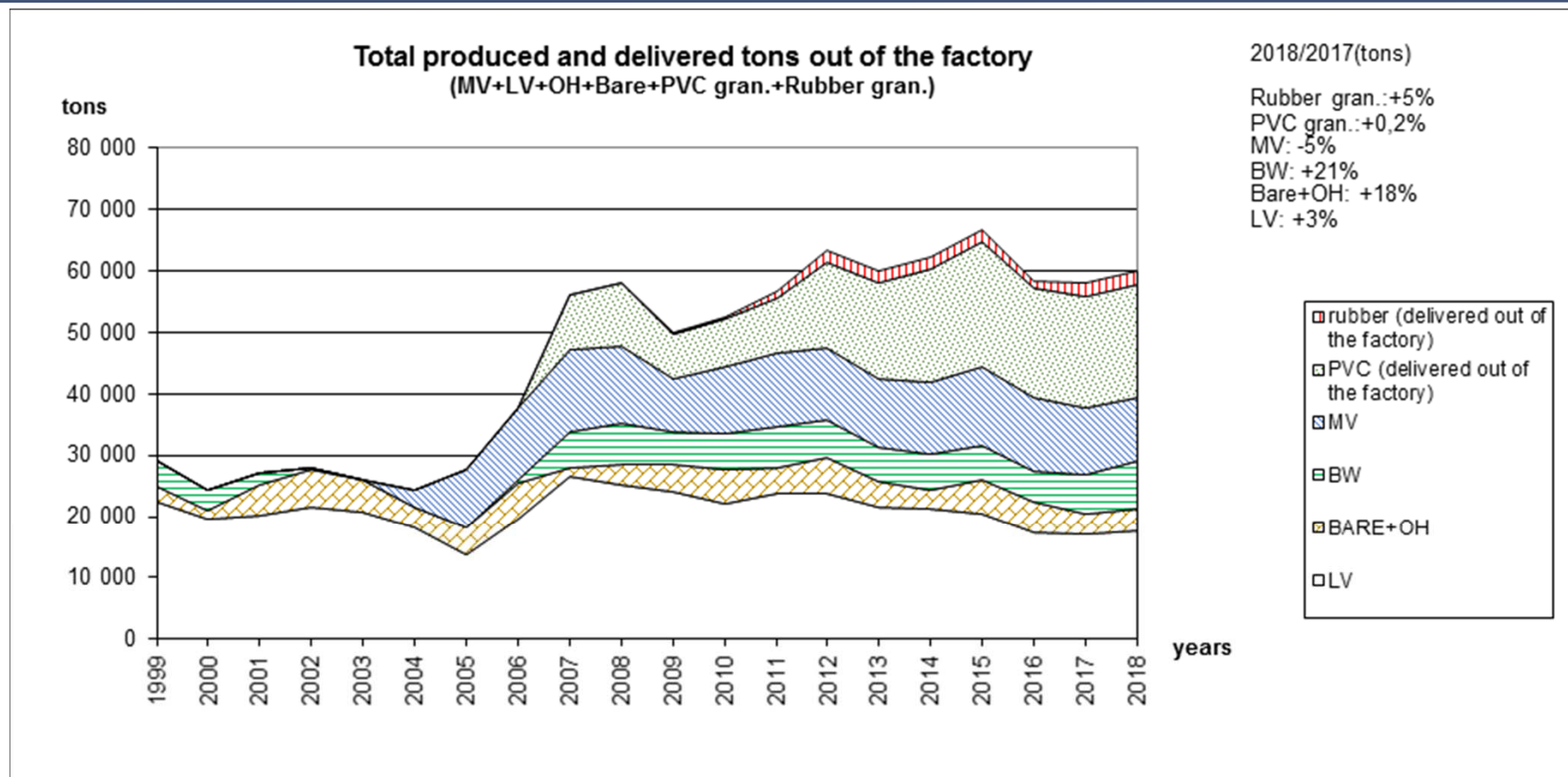
Main raw materials :

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
LV	22221	23794	23932	21488	21300	20565	17378	17145	17579
BARE+OH	5454	4268	5729	4199	3128	5367	4985	3275	3848
BW	6014	6597	6183	5655	5662	5758	5121	6431	7779
MV	10720	11935	11563	11052	11741	12859	11941	10845	10308
PVC (delivered out of the factory)	7964	9056	14164	15813	18383	20365	17810	18157	18185
Filler (delivered out of the factory)	239	1027	1707	1744	2207	1754	1028	2175	2284
Produced to of LV+OH+Bare+MV+BW	44 409	46 594	47 407	42 394	41831	44549	39425	37696	39514
Total tons delivered out of the factory:	52 612	56 677	63 278	59 951	62 420	66 668	58 264	58 028	59 983

Transport facilities:

- For the delivery of incoming and outgoing goods beside the road, the railway is also at our disposal.

Production Plant Load - Balassagyarmat



Products - Balassagyarmat



"Standard" Design

- _ Up to 630 mm²
- _ Alu & Copper cond
- _ XLPE insulation
- _ Screening by wires + tape
- _ Separation sheath extruded or lapped
- Armoire of Alu tape
- PVC or PE sheath



"F" Design

- _ Up to 630 mm²
- _ Alu & Copper cond
- _ XLPE insulation
- _ Screening by wires + tape, Water Blocking
- _ Separation sheath extruded or lapped
- Armoire of Alu tape
- PVC or PE sheath



"FL" Design

- _ Up to 630 mm²
- _ Alu & Copper cond
- _ XLPE insulation
- _ Screening by wires + tape, Water Blocking
- _ Moisture Barrier
- PE sheath



"PVC MV" Design

- _ Up to 630 mm²
- _ Alu & Copper cond
- _ PVC insulation
- _ Screening by copper tape
- _ Separation sheath extruded or lapped
- Armoire of Steel tape
- PVC sheath



"MV COMPACT" Design

- _ Up to 240 mm²
- _ Alu cond
- _ XLPE insulation
- _ Water Blocking
- _ Moisture Barrier
- PE sheath

Products - Balassagyarmat



Power Cables

- _ Up to 630 mm²
- _ 1 to 5 conductors
- _ Alu & Copper cond
- _ PVC & XLPE insulation
- _ Inner layers extruded or lapped
- _ Separation sheath extruded or lapped
- Armoire of steel tape
- PVC or PE sheath



ABC Cables

- _ Up to 150 mm²
- _ Alu & Copper cond
- _ PVC & XLPE insulation



Building Wires

- _ Up to 35 mm²
- _ Copper conductor
- _ PVC & XLPE insulation
- PVC & PE jacket
- Max. 7 cores



"PreInsulated" Design

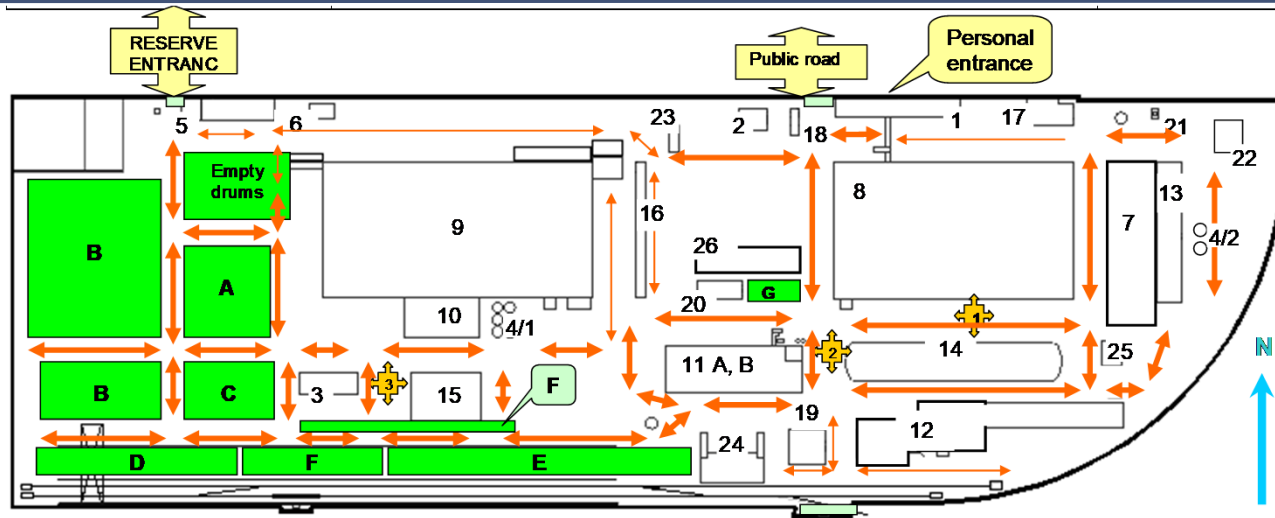
- _ Up to 150 mm²
- _ Alu cond
- _ XLPE insulation



"Bare" Design

- _ Up to 630 mm²
- _ Alu / Copper / AlMgSi / Steel-Alu

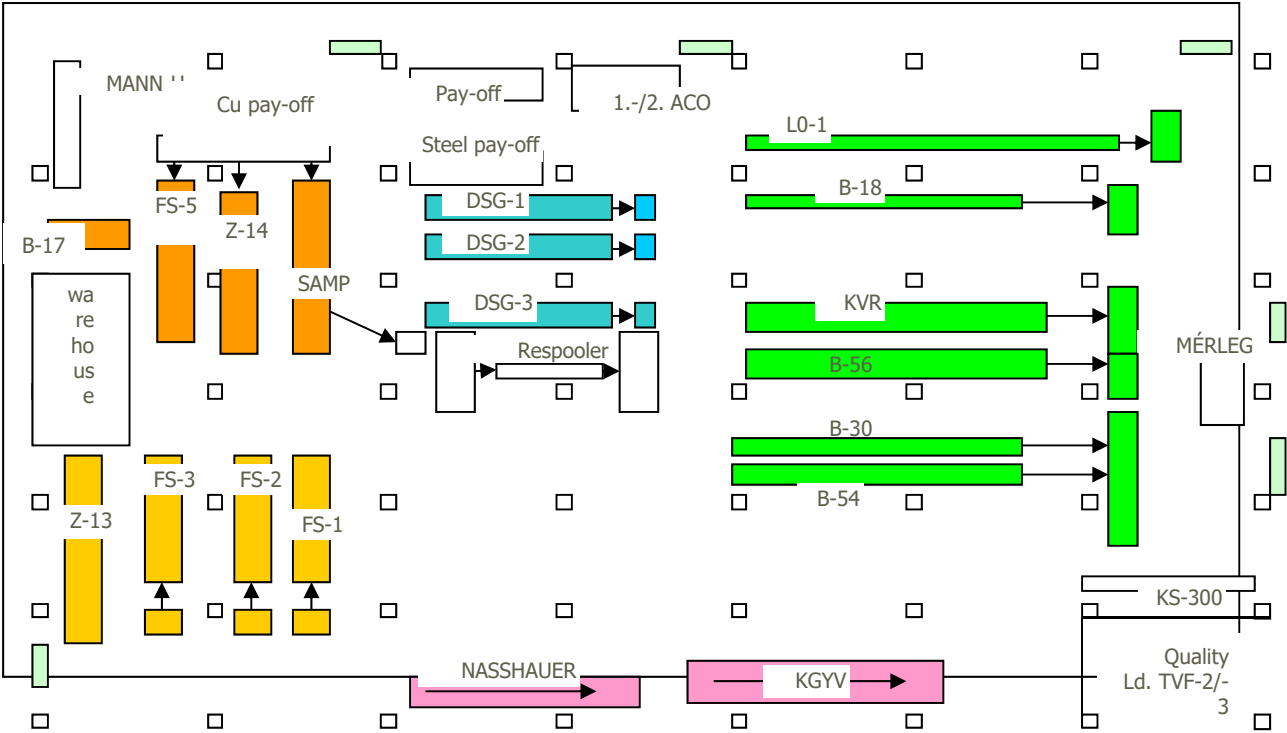
Balassagyarmat Factory Layout



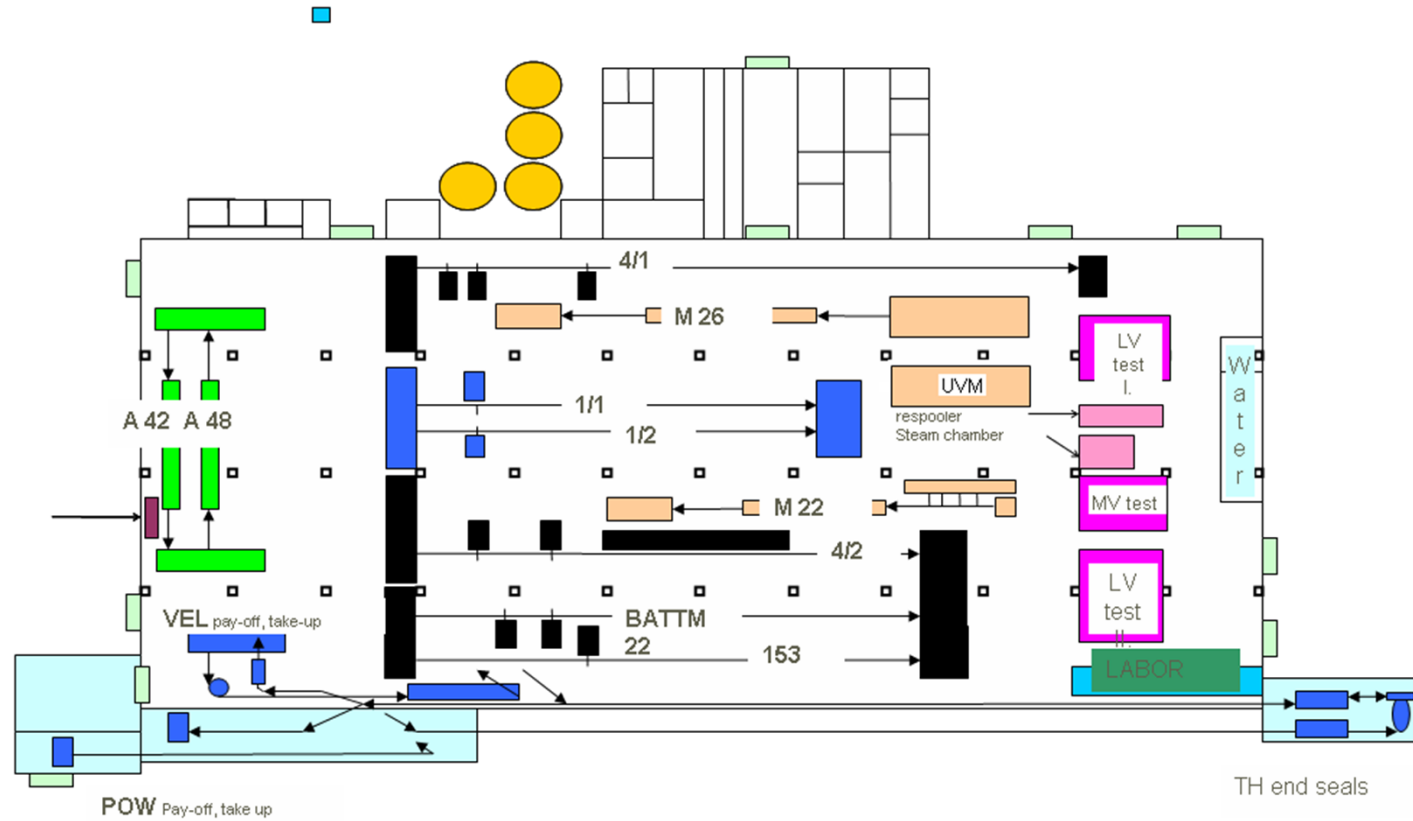
Legend:

	Vehicle traffic	1	Offices, social blocks	10	Branch works (transformator area II.)	18	Truck entrance
	Emergency meeting point	2	Out of use	11A	Maintenance	19	HV testing lab
	Gate	3	Out of use	11B	VDE long term tester	20	Cooling tower
	Defined storage area for finished goods	4/1,2	PVC silos	12	Compounding ws.	21	Gas supply station
		5	Cable shop (external)	13	BW workshop (whouse)	22	Gas feeder for fork lifts
		6	Out of use (wooden house))	14	Tent warehouse (raw material storage)	23	Fuel station
		7	BW workshop	15	Warehouse, material recycling.	24	Train loading area
		8	Metal workshop	16	Wh for techn. scrap	25	Dang. mat warehouse
		9	Cabling workshop	17	Transformer house	26	2. tent (conductors)

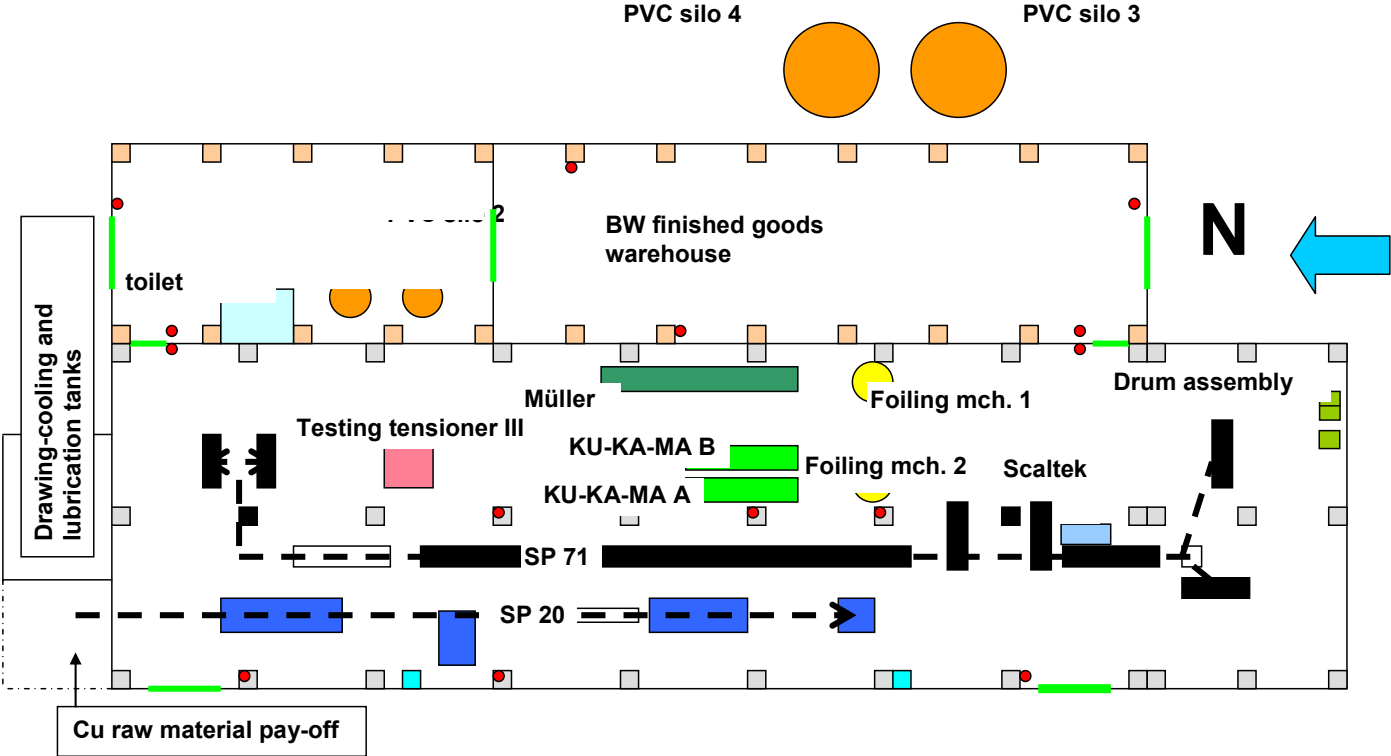
Metal Workshop - layout



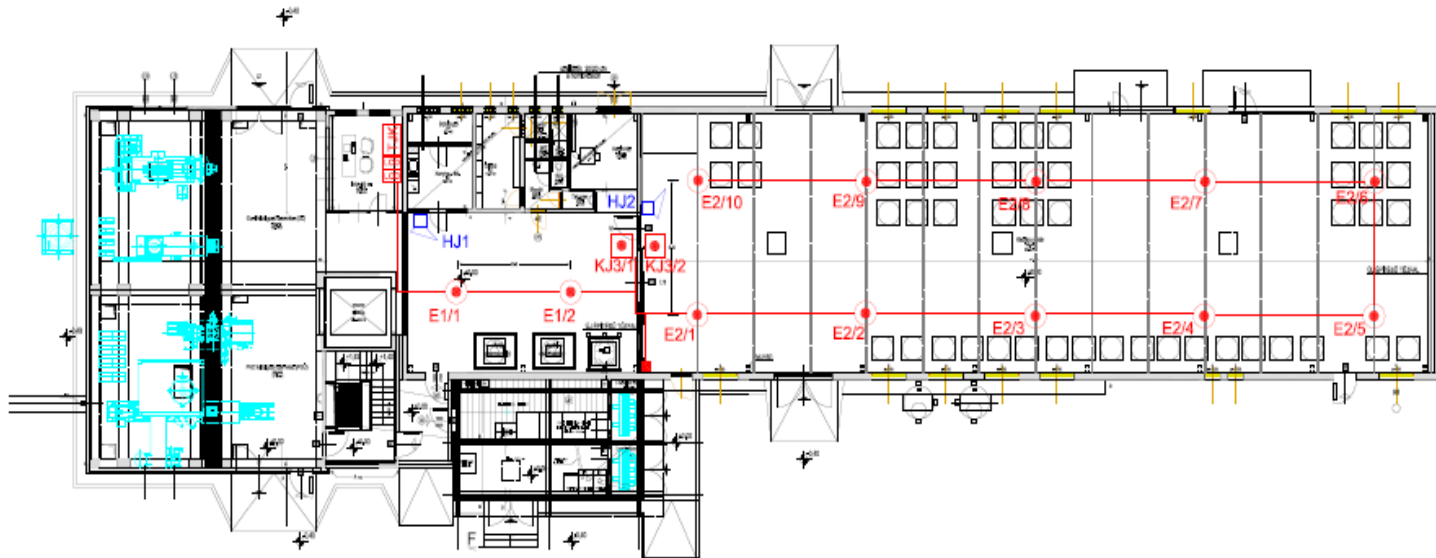
Cabeling Workshop - layout



Building wire Workshop - layout



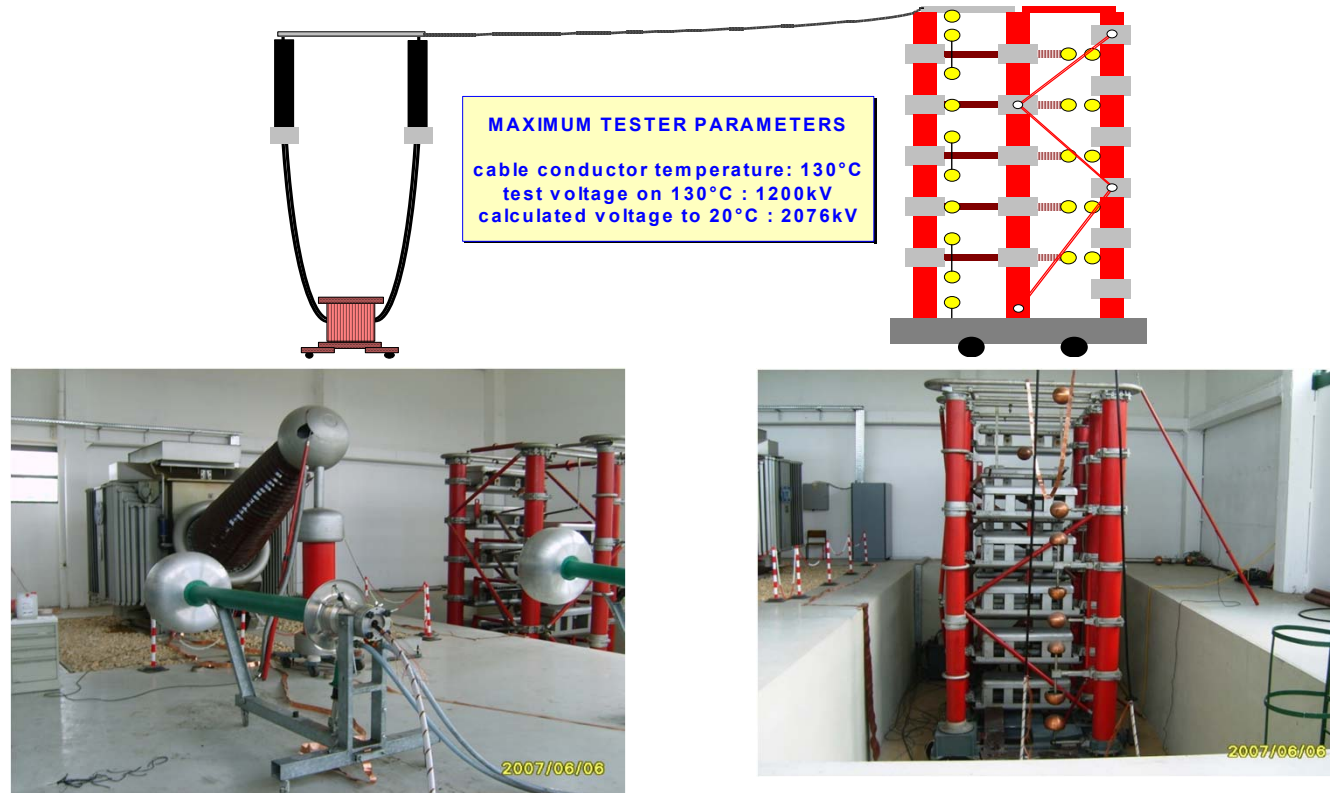
PVC & Filler (Rubber based) Compounding - layout



Electrical Tests



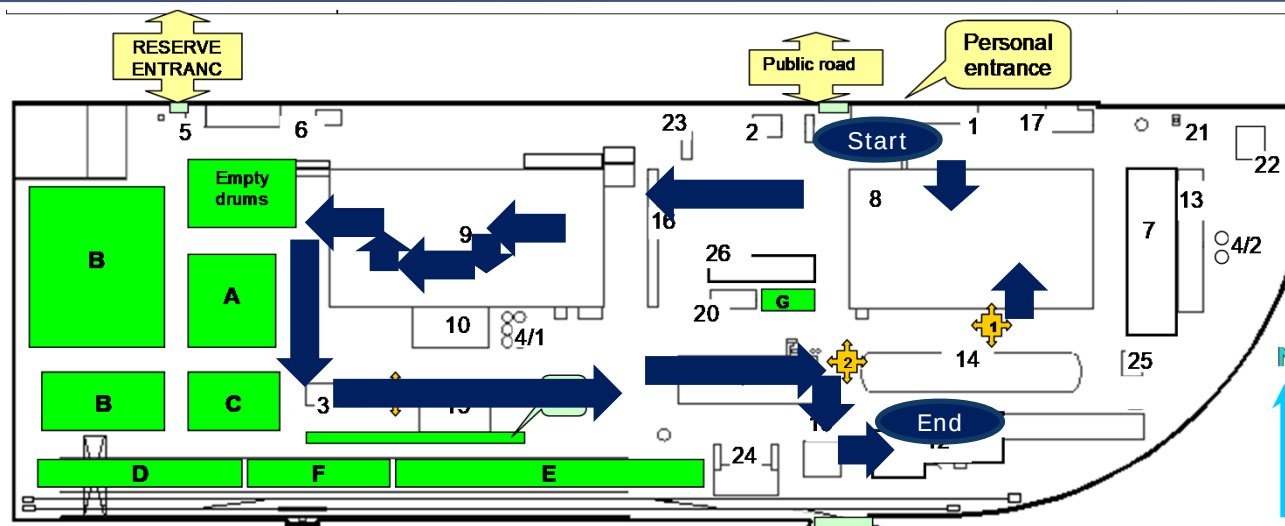
Electrical Impulse Test



Prysmian Group



Balassagyarmat Factory Layout

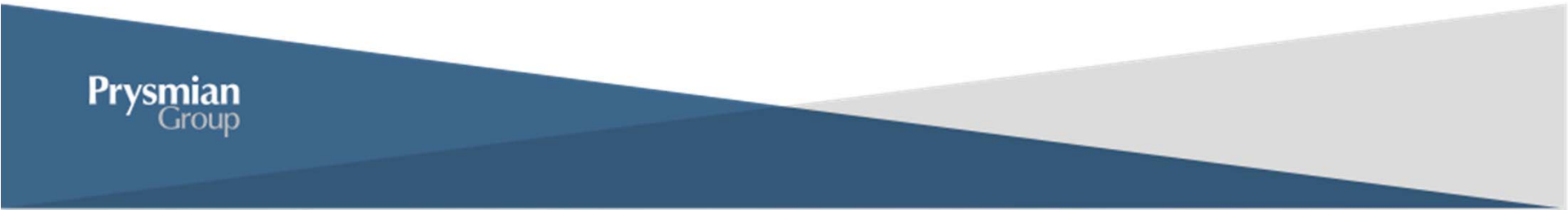


Legend:

	Visit road	1	Offices, social blocks	10	Branch works (transformator area II.)	18	Truck entrance
	Emergency meeting point	2	Out of use	11A	Maintenance	19	HV testing lab
	Gate	3	Out of use	11B	VDE long term tester	20	Cooling tower
	Defined storage area for finished goods	4/1,2	PVC silos	12	Compounding ws.	21	Gas supply station
		5	Cable shop (external)	13	BW workshop (whouse)	22	Gas feeder for fork lifts
		6	Out of use (wooden house))	14	Tent warehouse (raw material storage)	23	Fuel station
		7	BW workshop	15	Warehouse, material recycling.	24	Train loading area
		8	Metal workshop	16	Wh for techn. scrap	25	Dang. mat warehouse
		9	Cabling workshop	17	Transformer house	26	2. tent (conductors)



Thank you!



Prysmian
Group