

ermeo

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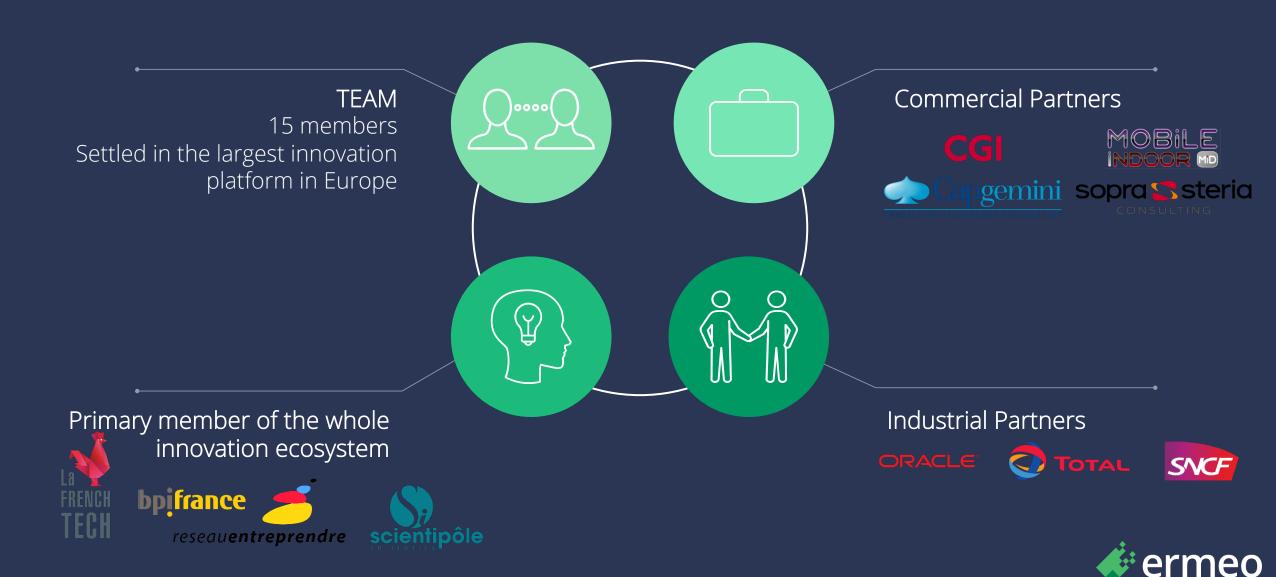
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Created in 2015



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A RECOGNIZED COMPANY



OUR RAILWAY INDUSTRY CLIENTS





The observation made

Lack of information

• Technical documentation is not at hand

No asset related information

Data is hard to feedback efficiently

• Still to much paper on the field

 Lots of time consuming double entries

For the field intervention

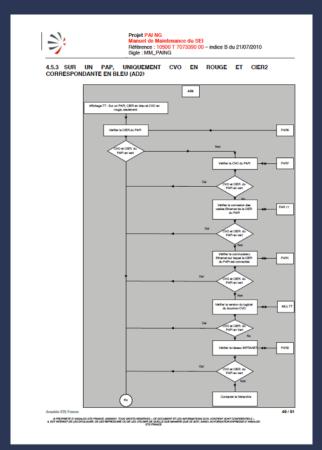
Operators are left with papers and/or oral trace of previous operations

After the intervention

Feedbacks are manual. Getting useful data out of paper is very unconvenient for the operator



Field technicians still have lots of paper on the ground



3 Projet PAI NG Manuel de Maintenance du SEI Référence : 10500 T 7073390 00 - indice B du 21/07/2010 Sidle MM PAING 4.6.3 VERIFIER L'ETAT DE LA CARTE CALS-06(PAR3) PAR3 EXECUTION CONFORME NON OUI Vérifier les voyants d'alimentation DEL situés sur les cartes CALS-06(CALS-06 PAP i = 1 à 3). Une portion de la face avant de la carte CALS-06est reproduite dans la Figure 28 Figure 28: Voyants DEL de la carte CALS-06 Vérifier si le disjoncteur du panier PAP est sous tension (cf. 4.1.1). Le bouton Marche (vert) doit être enclenché, le bouton Arrêt (rouge) ne doit pas l'être Figure 29: Bouton Marche/Arrèt Si le disjoncteur est hors tension, vérifiée l'alimentation au départ de l'armoire Alizet. Si celle-ci est dans la tolérance 24V +/- 20%, ré-enclencher le disjoncteur Si la dia rteur soute à nouveou remplacer la corte CALS A l'aide d'un voltmètre, verifier les tensions aux points de verification des CALS-06 en question - 5V VME (+47V à +55V) - +12V VME - -12V VME (+11.5V à +12.5 V (-11.5V à -12.5 V) - 5V VL - 24 VREG (+4.7 V à +5.5 V) (23.0 V à 25.0 V) Si les conditions ci-dessus ne sont pas remplies, remplacer la carte CALS-06. Refixer les vis de la CALS-06 Aevenir à l'arbre de décision 60 / 91 Ansaldo STS France © PROPRIETE D'ANDALLO STE FRANCE, 2008207, TOUS DROITE RESERVES - CE DOCUMENT ET LES INFORMATIONS OUT, CONTRENT SONT CONFIGENTIELS -L EST INTERDIT DE LES DIVUGUER, DE LES REPRODUIRE OU DE LES UTUGERS DE DIRELLE QUE MANERE OUE CE SOIT, SANS L'HUTDRISATION EXPRESSE D'ANDA

Decision trees

Maintenance procedures

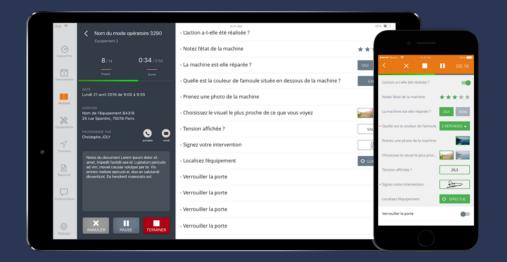
FORMULAIRE Nº 04 NOCI 6 NOCIMEE : 03/2014	CHAUFFAGE, VENTILATION, CLIMATISATION, TRAITEMENT D'AIR, INSTALLATIONS D'EAU CHAUDE SANITAIRE PROPORT DE VERPICATION REGLEMENTARE EN EDPLOTATION (RVRE) GE9
Nom Usuel de la Gare : G:D N° du code UT : 27 Type di Catégorie de l'établissement :	N Adresse: 55 rue Franklin ubien: B N° du Bien: 5AG Nom usgei du Bien: PLC 47 ERP type GA de: catégorie B
Référence du Contrat d'entreti Références règlementaires : (c Règlement de sécurité contre l'in	cendie relatif aur établissements recevent du public
	3-G230 W Antele du 22 juin 19900.article PE 4 , article GA 3 ou Artele du 20 levrier 1983
Vérification réalisée par : Nom du vérificateur : PA7 Identification de l'installation	AN Qualité: TECH
Nom du vérificateur : PAY Identification de l'installation y Nature de l'installation vérifiée	AN Qualifié TECH wintflée: REFAI23 E: (cocher les cases correspondantes) PLC W Chaufferie (P-70kW) ou local (P5 70 kW) ou entérieur du bâtiment (opsoil P) W
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Reports

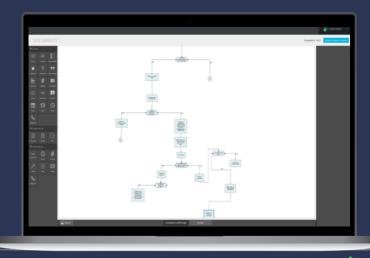


The Ermeo solution

An app to provide technicians with all the information and documentation they need to perform their operations...



...and a platform to transform technical documentation.





The mobile application : A digital toolbox for field technicians

Assets information

PMP-X1020	 	× × II 🕅
	Q Rechercher	Who is conducting the review? Fill
	4. Descriptor do podut	Reception
DATE DE DERNIRE INTERVENTION 10/09/2017	4 Description du produit 4.1 Printipaux composants	Floors
PUISSANCE MAX 520 RPM COMPETENCE	Fg.5 Program (any other state)	Check the condition of the floors, looking for marks or damage, condition of carpets and any hazards.
Elec-meca		What is the condition of the floor?
EQUIPMENT TYPE Pompe	1 Tableau, de commande 7 Bouton de Hammenet manual de termenet auxil de manual de la manual	Please take a photograph of the issue.
РНОТО	 Fig.5 Processor composants 1 Tate da Specie 2 Carbo da Se controlta 3 Esca da Se controlta da Controlta 3 Esca da Se controlta da Controlta 4 Esca da Se controlta da Controlta 4 Esca da Se co	Lightshot Screenshot What action needs to be taken? Fill
	14 17 Reconstruent du loga de vitant fou 19 Reconstruent du loga de vitant fou 19 Sa en se examina 1 19 Vita en agains de present de pareje	Walls & Ceiling
		Check the condition, checking for marks, damage, damp, build up of dust and debris.
·	Page: 15 / 20	What is the condition of the walls

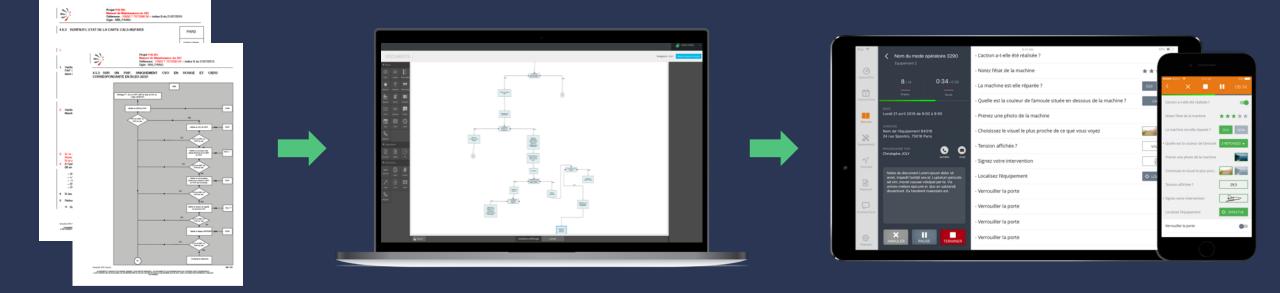
Documentation

Interactive forms



The web Platform : manage the documentation and edit automatical reports

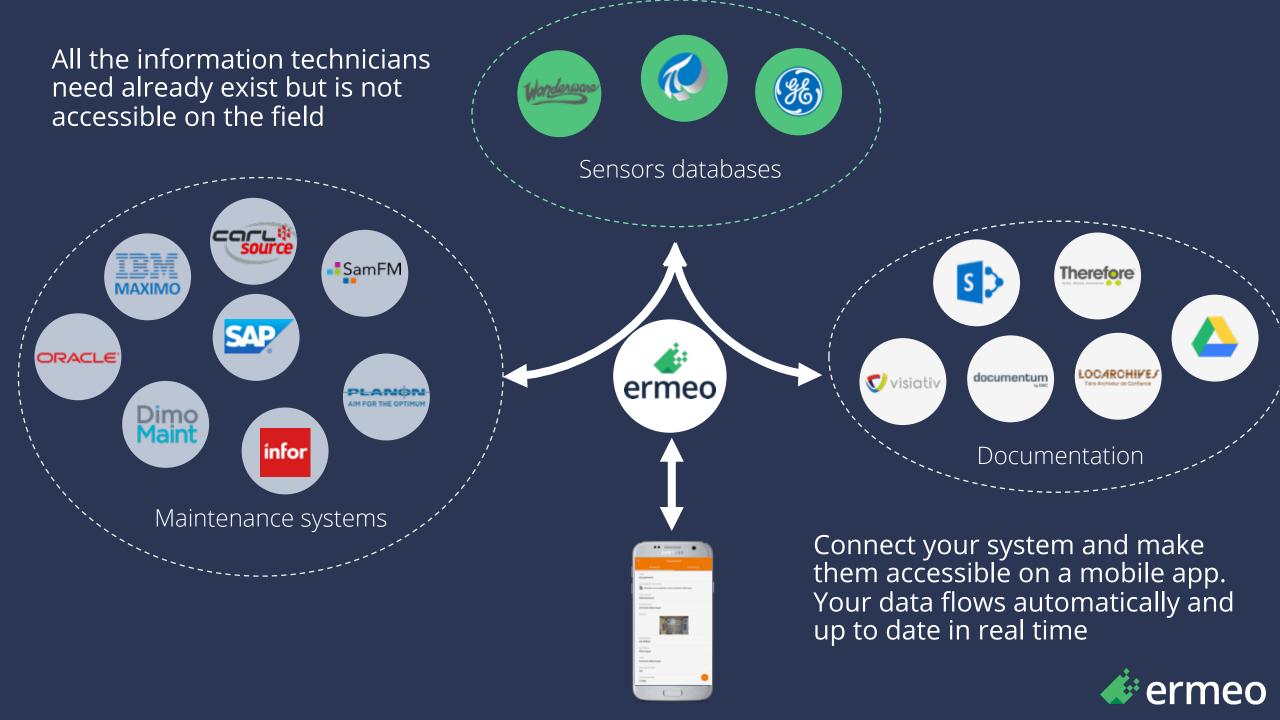
Transform static documentation into interactive documentation





Your processes are now transformed and accessible on the field. You have to connect them to your existing software





Roadmap

A complete solution for your technicians in less than 3 months





Value proposition

All information at hand

Documentation in a practical format

Stop multiple entries in software

Databases updated in real time



Examples of use cases in the railway industry



ERMEO & SNCF Digital mobile engins maintenance plan

Before Ermeo

Benefits from Ermeo



Data collected on a paper check-list and on an onboard notebook kept in the engin

→ Double work and data collected not used in any way

Documentation very heavy and therefore not carried all the time → Roundtrips very frequent to get the documents between the field and the maintenance center



Information is collected directly on the smartphone and feedbacked to the center in an workable format

→ Centralized easy accessible datas



Interactive forms
→ More datas asked to the operators to get more that paper used to be able to (photos, barcodes, etc.)



ERMEO & SNCF Digitalization of interlocking system troubleshooting

Before Ermeo

Benefits from Ermeo

Paper maintenance manuals of interlocking systems → 300 pages long document about a very complex system with no way to qui find the information needed now

Many manfunction possible origins → Hard diagnosis and unefficient repair operations



Digitalized smart documentation always with me
→ No rides to look for the good document
→ Easy navigation inside the document to get the right information



Troubleshooting guide
→ Diagnosis assistance and step by step guidance to do the right maintenance procedure
→ 15 % productivity gain and reduction of the downtime of the system



ERMEO & THALES Troubleshooting guides designed for clients

Before Ermeo

Benefits from Ermeo



Paper and PDF technical documentation given to clients to accompany their products → No added value of the technical documentation compared to their competition

Manual edition of the documentation and reprinting → Costly and time consuming versionning



Commercial offer enhanced with and added format of documentation → A new differencial offer that will help their client to use and maintain their products in a significative way



Establishment of a higher level of communication with their clients
→ Documentation can be updated in a click.
→ Updates can be made thanks to feedbacks given directly from clients maintaining their systems



ERMEO & COLAS RAIL Safety follow up digitalized procedures

Before Ermeo

Benefits from Ermeo



Control paper sheets on the field to ensure the on time construction of a railaway in Conakry

→ Double entries on software (SAP, Oracle) at the office after the field checkup



2-3 days between the field operation and the transcription on softwares

→ Data lost or incomplete and human mistakes possibility



Data entererd directly on the yard and connected to the IT environnement → 15 % Productivity gain



Automatical digital reports → Complete data exploitable and transmitable to the client



ERMEO & EUROTUNNEL Rollling stock information is now accessible and exploitable

Before Ermeo

Benefits from Ermeo

Rolling stock data are not available → Technicians have no acces to rolling stock information and unreliable

No technical documentation related to equipment → The existing documentation is not available when needed



All rolling stock data are on the field → Information retrieved in real time from the database. The data is now valid and treatable



All rolling stock documentation are on the field

→ The documentation is digitalized and accessible every time

