NET SURFING SRL

Diamo valore ai dati raccolti

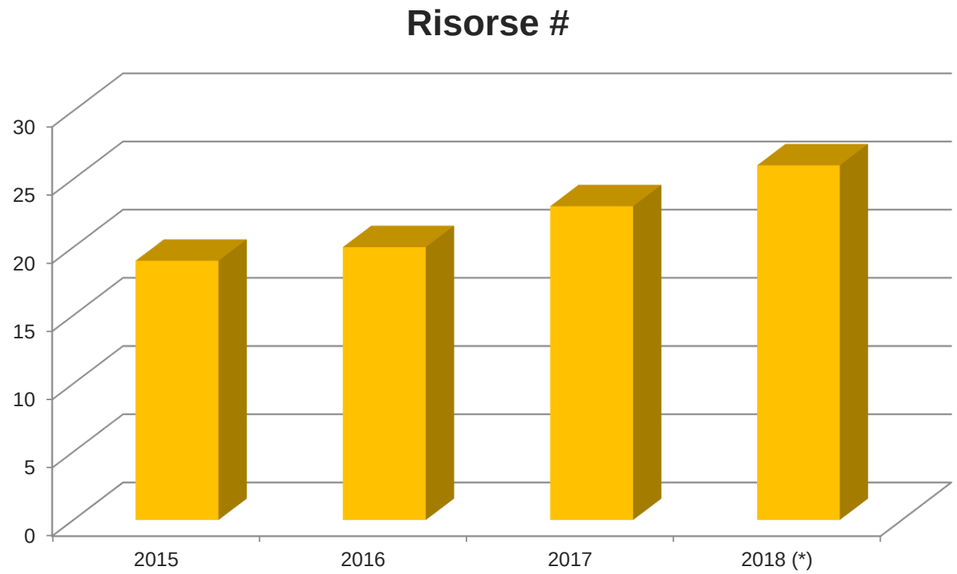
(produzione, energia sensori)

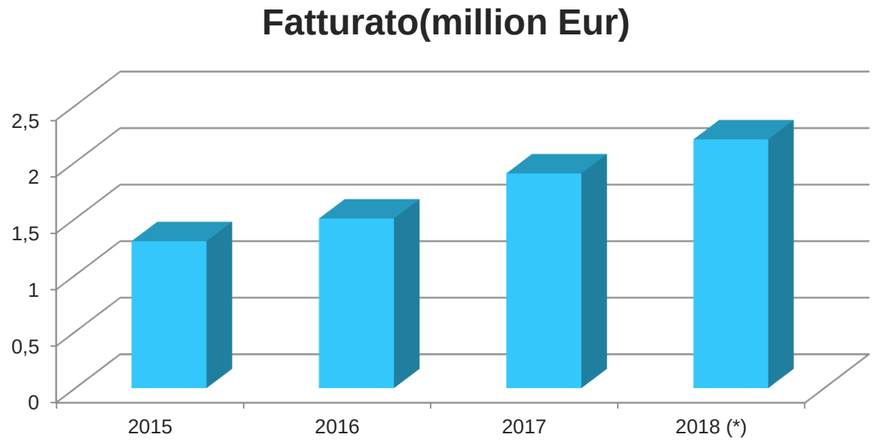
Speaker:
Luisa Spairani
Amministratore

Chi siamo

Nata nel 1995 a Ivrea come ISP

- Specializzata in software engineering, sviluppo piattaforme digitali (retail/finance), Web & Mobile
- Focalizzata su Enterprise Asset Management, ISO55000, Industrial IoT, Manutenzione Smart
- Fa parte del PoloICT dalla sua fondazione





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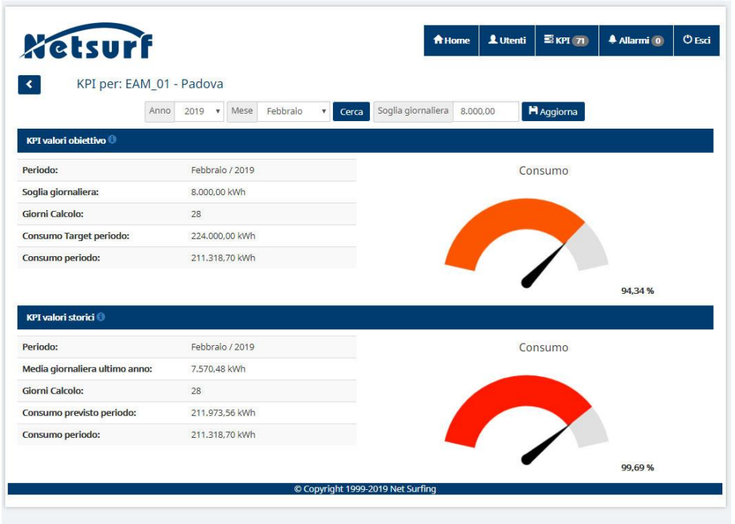
Agenda

- I dati «industriali» raccoglierli una sola volta, utilizzarli al meglio
  - Il Digital Backbone «di stabilimento»

- Cosa farsene dei dati?
  - Efficientamento energetico: EAS - Energy Analytics System
  - Efficientamento della produzione: OEE Manager
  - Efficientamento degli Asset: Enterprise Asset Management



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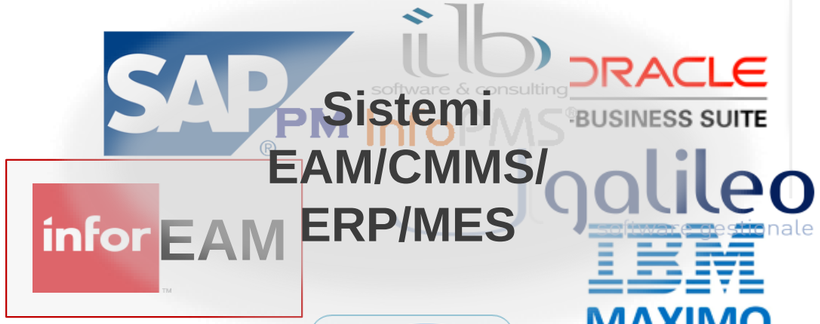
BI and AI tools for big data & predictive maintenance analysis

…altri

Sistemi EAM/CMMS/ ERP/MES



Net Surfing WA-EAM interface

SQL DB
Hadoop / Spark

Digital Backbone

Sistemi Industrial IoT Industry 4.0

MQTT
SNMP
ODBC
……

OPC /ODBC

MQTT

MQTT

driver

driver

MODBUS

MODBUS

Citect

ifm
LINERECORDER
SMARTOBSERVER

invensys Wonderware

WinCC Professional

OPC FOUNDATION

MQTT.ORG

Netsurf

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BI and AI tools for big data
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Sistemi
EAM/CMMS/
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interface

SQL DB
Hadoop / Spark

ADVANTECH

WebAccess

Sistemi Industrial IoT
Industry 4.0

MQTT
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SMARTOBSERVER

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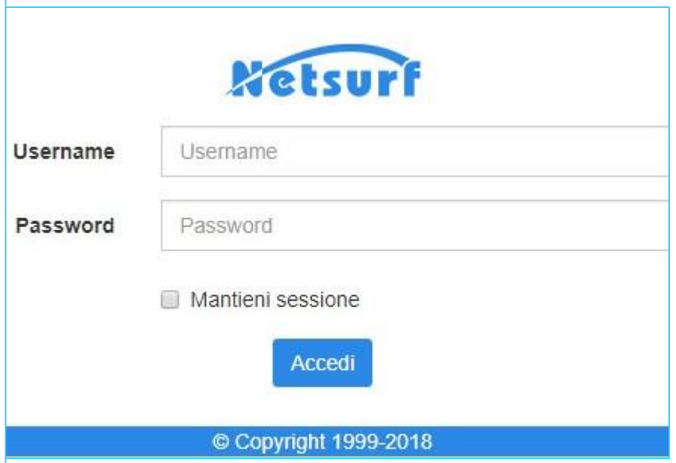
Efficientamento energetico



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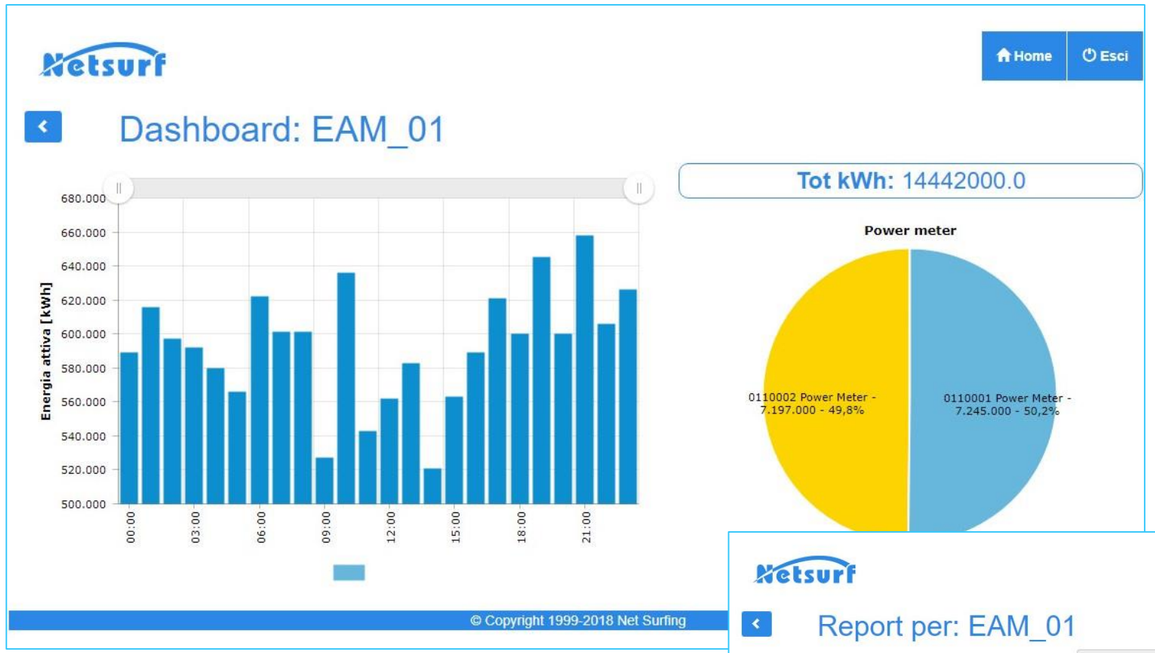
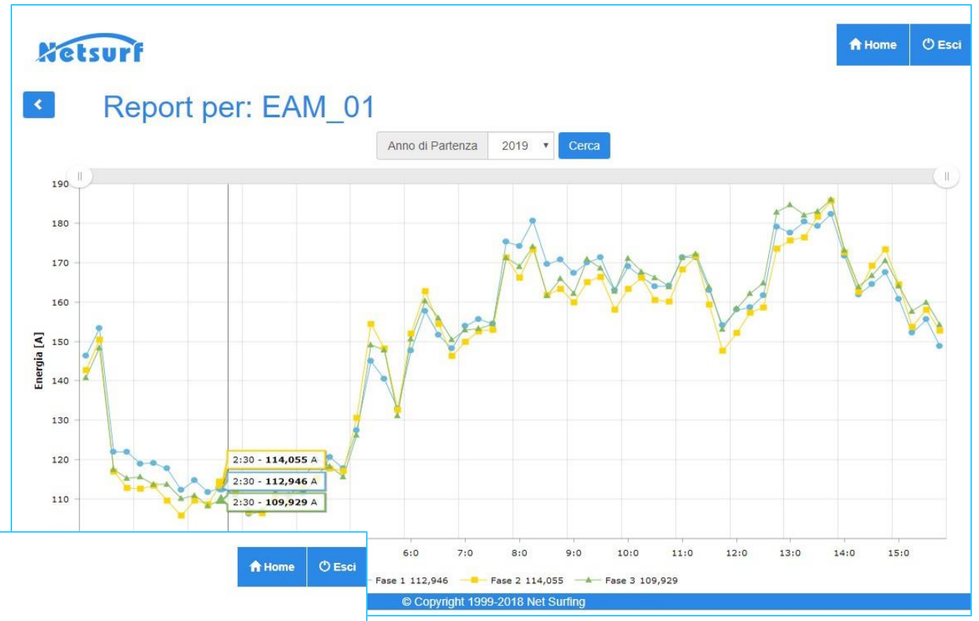
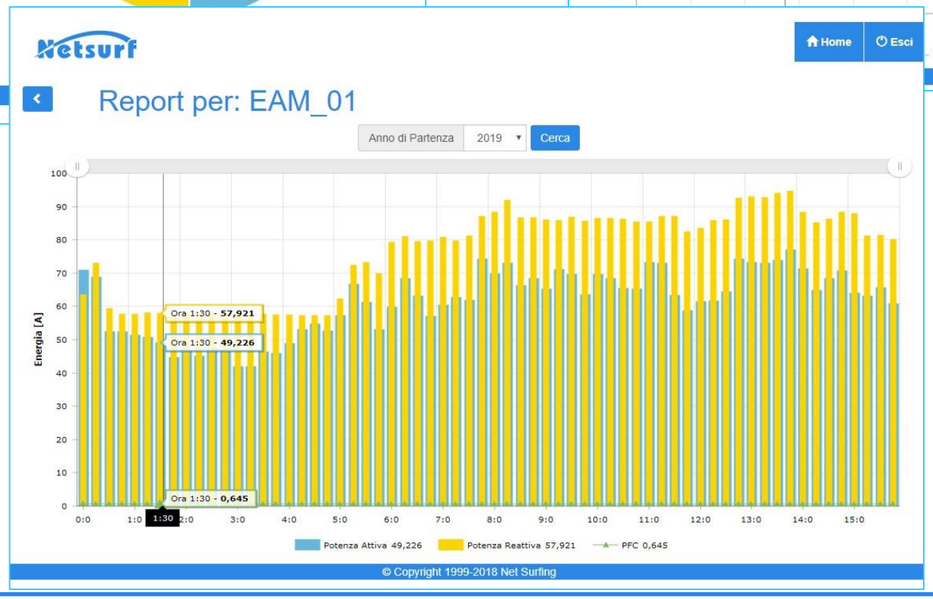
EAS - Energy Analytics System







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EAS - Energy Analytics System

Misuratori Energia Elettrica *fiscali e non*

Energy Counters / Meters *Integrati (via PLC/CNC)*

Misuratori Acqua / Gas / Riscaldamento / Raffrescamento

Dati «fisici» *Temperature, pressioni, …*

Dati «di carico»

Netsurf OEEmanager

WebAccess

Netsurf EAS

infor EAM

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Efficientamento della produzione

OEE manager

- **Overall Equipment Effectiveness**. Un indice importante per tenere sotto controllo l'efficienza dei propri Asset Industriali
- Misurare il vero OEE, non semplicemente quanto hanno prodotto le macchine
- Semplificare e automatizzare la misura: minimizzare/ eliminare la necessità di inserire dati manualmente

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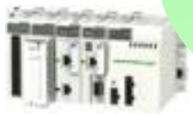
OEE Manager

Availability data

PLC / CNC



Performance data

PLC / Meters

Quality data

PLC / Sensors / Camera

Planning data

MES - ERP

WebAccess

Netsurf OEEmanager

infor EAM

Netsurf

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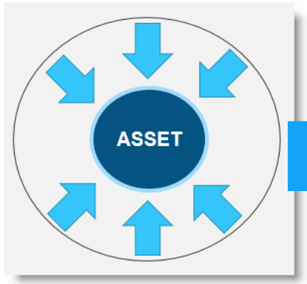
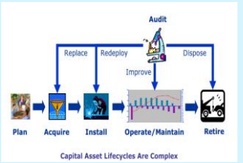
Enterprise Asset Management …

Il focus è tutto centrato sull'Asset … e si può gestirne gli aspetti di …

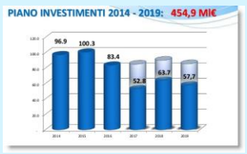


PC e Mobile

Manutenzione

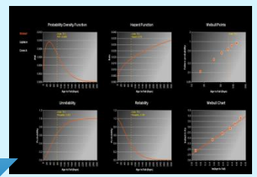


Ciclo di Vita



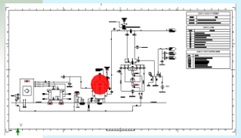
Pianificazione Investimenti

Progetti



Affidabilità

Documenti



Disegni CAD

Contratti

Materiali & Magazzini

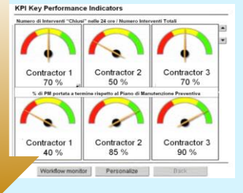
Controlli di Legge

Sicurezza

Normative
ISO 55000

Fornitori

Energia



Performance

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Operation & Maintenance

ERP

Dati Finanziari, costi, ordini, materiali, fornitori, produttività,..

EAM

MES
Qualità
Laboratorio

OEE

Analisi Asset tramite dati “multidimensionali”

Turni, previsioni, pianificazione, analisi, diagnosi, ….

OEE: pianificato vs prodotto, scarti, allarmi, eventi

PLC/ Dati machina On-line

Pressioni, flussi, temperature, vibrazioni, contatori, regolazioni, ….

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Grazie per l'attenzione

Contatti:

Net Surfing s.r.l.

C.so Vercelli 444

10015 Ivrea (TO) Italy

Tel. +39.0125.252031

https://www.netsurf.it

Luisa Spairani

Mobile: +39.348.8068751

luisa.spairani@netsurf.it

Enrico Baratono

Mobile: +39.335.726.1428

enrico.baratono@netsurf.it

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