



EVERYTHING INTELLIGENT



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TECHNOLOGY IS NOT THE (only) PROBLEM

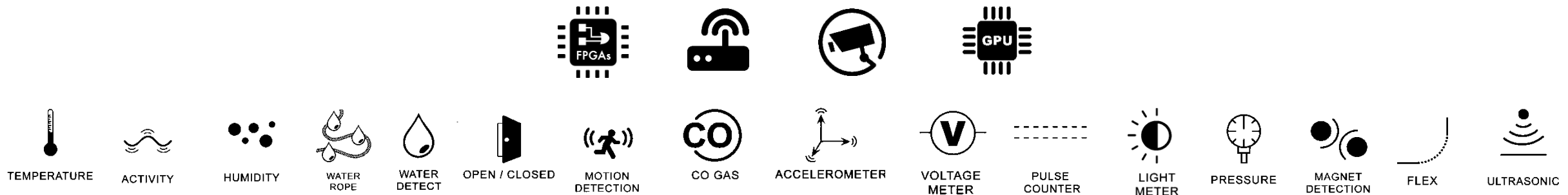


1. Lack of convincing business cases

REMOTE MONITORING TRACKS



| | Sensor data | Data processing | Outcome |
|---------------------------------------|---|--|--|
| Prescriptive based maintenance | Possibly high speed measurements and edge pre-processing | Integration with business systems, possibly machine learning and AI | Automised work order and maintenance management |
| Predictive based maintenance | Possibly high speed measurements and edge pre-processing | Analysis of indirect and external data, possibly machine learning and AI | Fail analysis, higher productivity, less down-time, cost savings |
| Condition based maintenance | Hours of production, vibration, energy consumption, rpm, pressure and edge pre-processing | Time series analysis and threshold monitoring | Condition based alerts, possibility for service based business |
| Time based maintenance | None or hours of run time | Threshold monitoring | Technician inspection and service check |





BUSINESS MODEL PATTERNS

Business Model Builder

Why re-invent the wheel?



The 55 Business Model Patterns as Overview

| No | Pattern name | Affected BM components | Exemplary companies | Pattern description |
|----|---------------|------------------------|---|---|
| 1 | ADD-ON | What Value | Ryanair (1985), SAP (1992), Sega (1998) | The core offering is priced competitively, but there are numerous extras that drive the final price up. In the end, the customer pays more than he or she initially assumed. Customers benefit from a variable offer, which they can adapt to their specific needs. |
| 2 | AFFILIATION | How Value | Amazon Store (1995), Cybererotica (1994), CDnow (1994), Pinterest (2010) | The focus lies in supporting others to successfully sell products and directly benefit from successful transactions. Affiliates usually profit from some kind of pay-per-sale or pay-per-display compensation. The company, on the other hand, is able to gain access to a more diverse potential customer base without additional active sales or marketing efforts. |
| 3 | AIKIDO | Who What Value | Six Flags (1961), The Body Shop (1976), Swatch (1983), Cirque du Soleil (1984), Nintendo (2006) | Aikido is a Japanese martial art in which the strength of an attacker is used against him or her. As a business model, Aikido allows a company to offer something diametrically opposed to the image and mindset of the competition. This new value proposition attracts customers who prefer ideas or concepts opposed to the mainstream. |
| 4 | AUCTION | What Value | eBay (1995), Winebid (1996), Priceline (1997), Google (1998), Elance (2006), Zopa (2005), MyHammer (2005) | Auctioning means selling a product or service to the highest bidder. The final price is achieved when a particular end time of the auction is reached or when no higher offers are received. This allows the company to sell at the highest price acceptable to the customer. The customer benefits from the opportunity to influence the price of a product. |
| 5 | BARTER | What Value | Procter & Gamble (1970), Pepsi (1972), Lufthansa (1993), Magnolia Hotels (2007), Pay with a Tweet (2010) | Barter is a method of exchange in which goods are given away to customers without the transaction of actual money. In return, they provide something of value to the sponsoring organisation. The exchange does not have to show any direct connection and is valued differently by each party. |
| 6 | CASH MACHINE | How Value | American Express (1891), Dell (1984), Amazon Store (1995), PayPal (1998), Blacksocks (1999), MyFab (2008), Groupon (2008) | In the Cash Machine concept, the customer pays upfront for the products sold to the customer before the company is able to cover the associated expenses. This results in increased liquidity which can be used to amortise debt or to fund investments in other areas. |
| 7 | CROSS SELLING | How What Value | Shell (1930), IKEA (1956), Tchibo (1973), Aldi (1986), SANIFAIR (2003) | In this model, services or products from a formerly excluded industry are added to the offerings, thus leveraging existing key skills and resources. In retail especially, companies can easily provide additional products and offerings that are not linked to the main industry on which they were previously focused. Thus, additional revenue can be generated with relatively few changes to the existing infrastructure and assets, since more potential customer needs are met. |
| 8 | CROWD-FUNDING | How Value | Marillion (1997), Cassava Films (1998), Diaspora (2010), Brainpool (2011), Pebble Technology (2012) | A product, project or entire start-up is financed by a crowd of investors who wish to support the underlying idea, typically via the Internet. If the critical mass is achieved, the idea will be realized and investors receive special benefits, usually proportionate to the amount of money they provided. |

- › Developed by University of St. Gallen, Switzerland and Bosch
- › Collection of 55 repetitively recognised patterns.
- › The IoT Business Model Builder and Navigator is great for business model innovation
- › Find them on: www.glaze.dk/iotweek



Business Model Innovation + Cloud Services = Better Business Cases

Physical freemium

Object self service

Digital add-on

Product as point of sales

Digital lock-in

Remote usage and condition monitoring

Sensor-as-a-service

PHYSICAL FREEMIUM

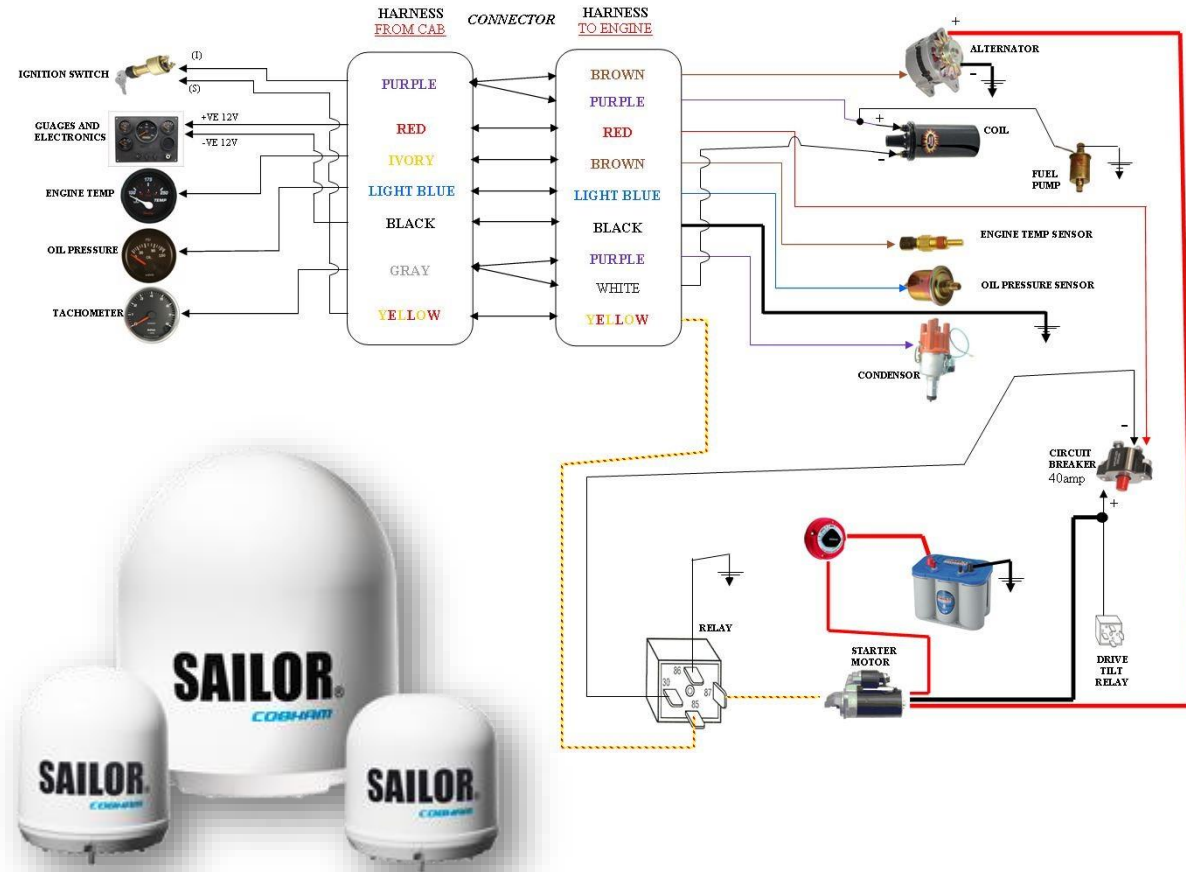


OBJECT SELF SERVICES



Assign simple rules on sensor data and integrate with ERP, CRM or Connected Field Services

PRODUCT AS POINT OF SALES



DIGITAL ADD-ON



Develop value-added services and insights