

Wireless data+energy

(no relays/satellites, pipes/tankers)



Selected Partners can operate their own, fully-independent, unbreakable Global-WAN network.

Origin of the Business Idea

In **1998** TWD created **Remote-Anything (RA)**, and sold **280m licenses** in **138 countries** – from governments, banks, and manufacturing plants, to universities, nuclear plants and SMBs.

In 2005, facing unfair competitors, TWD started Global-WAN, registered the brand in 2006, and found "unconditional" security ("unbreakable" in academic jargon) in 2007.

Global-WAN as software is online since 2010.

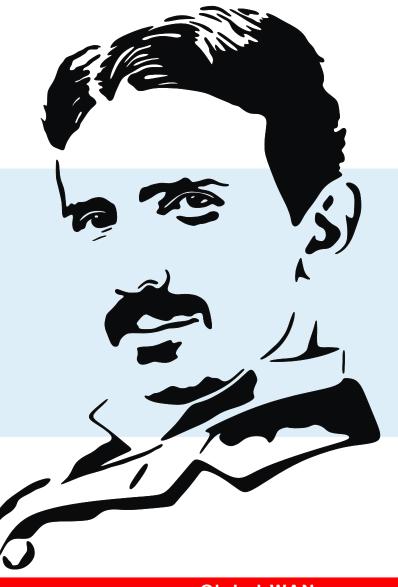
TWD's MISSION: allow people, organizations, and machines to safely operate, communicate and trade in a resilient manner.

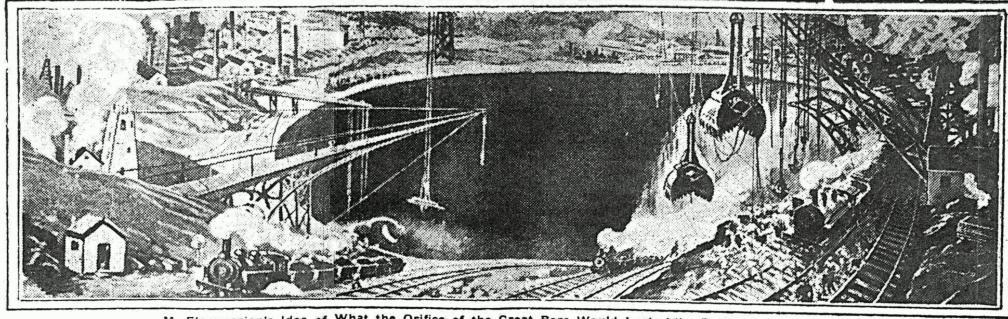


1897 Tesla

"In the twenty-first century, the robot will take the place which slave labor occupied in ancient civilization."

"It will soon be possible to transmit wireless messages around the world so simply that any individual can carry and operate his own apparatus."





M. Flammarion's Idea of What the Orifice of the Great Bore Would Look Like During Construction.

Nicola Tesla for the First Time Describes His New System for Supplying Wireless Power to Run All the Earth's Industries.

a series of discoveries and inventions just perfected, Nikola Tesla, the electrical scientist, has upset what has hitherto been regarded as one of the fixed laws of nature "Every effect diminishes with the distance," is the way the text books have expressed it. Tesla now asserts that instead of decreasing, like other forces, electricity may be made to increase in intensity with the distance travelled.

The full significance of this discovery may not be at once apparent. It is obvious, however, that it annihilates space. There can be no limit to the power of an electric wave which increases in intensity the further it travels.

of this wonderful instrument, and am confident that a message can be flashed to such a distance as the planet Mars.

"Some technical men would be disposed to look upon such statements as those of a dreamer, but it is only because they have not had opportunities to see experiments which I have actually performed. The third invention I have designated as the art of individualization,' which enables the transmission of an unlimited number of messages through a wire or wireless, without the slightest interference. Not before this improvement is universally adopted will the world fully realize the benefits of telegraphy and telephony. The fourth invention is

which are of importance to navigators, as the latitude and longitude, the position with reference to a given point, the speed of travel and the course followed. This method is quite exact and reliable, and once introduced will be instrumental in a great saving of time, life and property."

"When your system of time distribution is introduced what kind of devices will be used for indicating the hour?"

"They will be ever so much simpler than the ordinary clocks or watches, being entirely devoid of wheel work. For personal use a small case will be provided resembling that of a waten which will indicate precisely the time and re-

To Turn Earth into One Gigantic Dynamo

The Wireless Wonders That Tesla's "World System" May Perform.

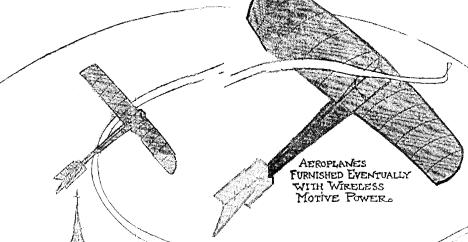
- Television, making it possible to see any object at any distance.
 - Universal twenty-four-hour daylight by wireless illumination.
- Instantaneous transmission of typed or hand-written characters all over the world.

- 6 Communication with Mars.
- 7 Operation of all manufacturing and transportation machinery.
- 8 Every clock and watch in the world set and regulated by wireless at certain time each day.

- 9 Universal telephony, making it possible to speak to any distance.
- A perfect government secret signal service by exclusive wireless waves.
- Simultaneous operation of all stocktickers throughout the world.
- Universal system of musical transmission on atmospheric currents.
- 3 Irrigation and fertilization of arid lands by wireless power.
- The magnetizing of enemy's battleships to attract torpedoes.

Reproduction of drawings and photographs at any distance.

> Absolutely exclusive telegraphy and telephony.



Global-WAN

NEW YORK

Operation of

flying ma-

chines by

Navigation of

ships through

fogs and channels by

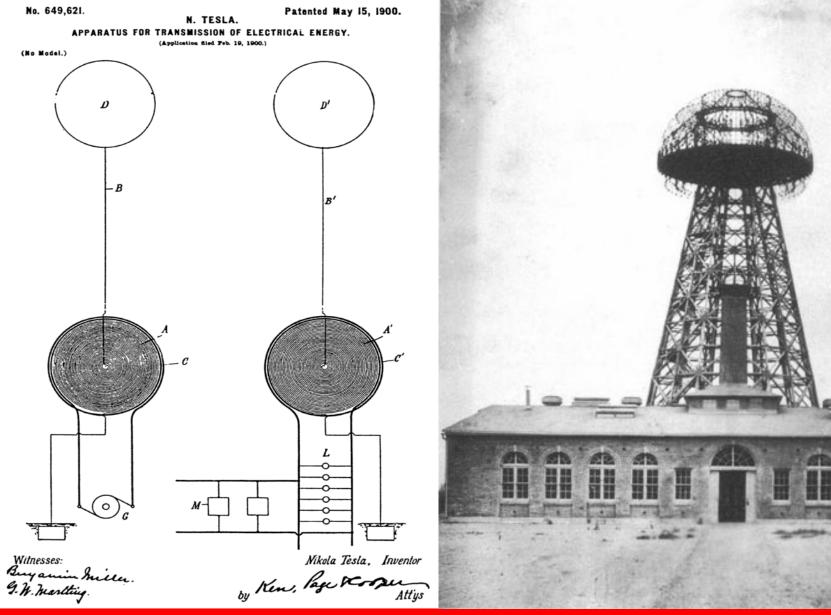
wirele s s

"tuned"

compasses.

wireless power.

JP Morgan stopped financing Tesla when he found that there was NO **WAY TO BILL WIRELESS ENERGY END-USERS.**





One Century Later... (Electronics have made it possible to reduce design size and costs dramatically, and TO BILL END-USERS)

Wireless Energy Demonstrations

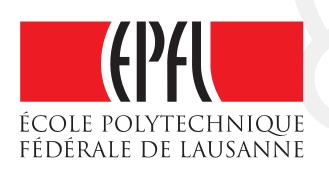


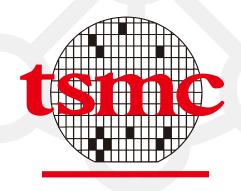
Certifications & Tests



In 2014, the Swiss **EPFL Microelectronic Systems Laboratory** has conducted a 30-page study (costs/delays) of Global-WAN chips (academic documents available on-demand).

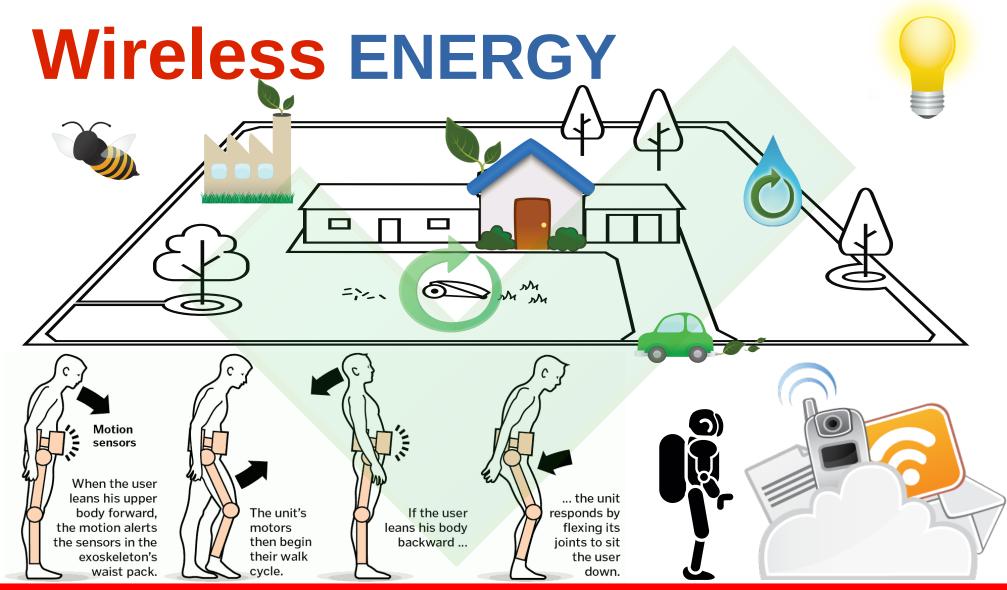
Under NDAs, TWD got manufacturing contracts from the two largest world foundries, and integration contracts of the chips from a major IoT manufacturer (supplying Apple Inc):







Wireless ENERGY production & transfer TIP: using water (H2O) reduces oil consumption by 30% and toxic emissions by 97% (a trick used during WWII). Gas combustion is much cleaner (rejecting only CO2 and water vapor). Air Intake Turbine Compressor **Exhaust** Oil Transformer **Natural** Combustion Generator Chambers Gas Water



Wireless Data + ENERGY retinal implant Cochlear ACTIVA PE implant Deep brain neurostimulator Cardiac defibrillator / pacemaker Maditronic gastric stimulator spinal cord insulin pump stimulator foot drop stimulator MedTech



Business Model



Calculation details: Year #1 revenues = EUR 180m with 5m users, so 180/5 = EUR 36 of annual revenues per end-user (at least one sale of a Global-WAN chip and a 12-month subscription):

	Year #1	Year #2	Year #3	Year #4	Year #5
Subscribers	5m	30m	90m	180m	288m
Growth Rate	5,00 <mark>0%</mark>	600%	300%	200%	160%
Revenues	EUR 180m	EUR 1bn	EUR 3bn	EUR 6bn	EUR 10bn
EBITDA	EUR 59m	EUR 360m	EUR 1.5bn	EUR 2.3bn	EUR 3.6bn
EBIT	EUR 57m	EUR 354m	EUR 1.2bn	EUR 2.1bn	EUR 3.5bn

Pricing freedom: If users got free chips, then they paid EUR 3 per month to use Global-WAN. If users paid chips EUR 24 then EUR 1 per month was paid to use Global-WAN. Both pricing models lead to the table's numbers.

Investor Exit



Never before a software + hardware manufacturing project has been prepared for so long – the cycles here are more similar to the Pharmaceutical industry – just like the revenues:

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Global-WAN chip <u>subscriptions</u> will be extremely lucrative – *even with* conservative projections. Assumptions: EUR 25m investment (20% stake).

Exit: Sale or IPO at 2.5 times TWD's 5th year revenues.

Global-WAN.ch

Status & Milestones

2019: TWD invited at the **Munich Security Conference**

2018: TWD invited to meet government bodies in China

2017: TWD invited by a stock-exchange to meet a central bank

2016: TWD's technology is audited by the UK Gov. (GCHQ experts)

2014: **EPFL** & **CTI** Global-WAN **ASIC** chips study (costs, delays)

2010: http://Global-WAN.com/ is publicly online

2009: http://G-WAN.com/ Application Server is publicly released

2007: Global-WAN project (provably-safe crypto found, brand registered)

2005: 280 millions of RA/DS licences deployed in 138 countries

2003: Firewall-traversal & by-design security international patents (DS)

2002: http://SummitPartners.com/ offers "liquidity for founders"

1999: http://Remote-Anything.com/ (RA) is publicly released

1998: TWD Industries has been incorporated on 23/04/1998

TWD Industries AG

TWD Industries AG

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About TWD Industries



TWD Industries AG protects digital assets with **cryptanalytically unbreakable** technology (safe against unlimited computing power as it is proven mathematically that no algebraic structures can be exploited to reconstruct the encryption algorithm, secret key, or plaintext). The Global-WAN secure platform leverages offers of enterprise, cloud, networking, digital media and financial services in global strategic markets.

TWD lets partners and users form dynamic ecosystems where duly accredited strangers can safely trust eachother. Establishing widespread trust enables organizations to secure their infrastructure, raise the value of their offers and safely market their digital assets.

