



ARTEV Management Platform  
'Intellectual Asset Management at Enterprises'

# IP from University Labs to Products

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# Outline

ARTEV Management Platform  
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- The roadmap from an idea to a product
- IP in wireless communication, automotive and avionics
- The role and gain of universities

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# From Idea to Product

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# Which IP?

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- Sources of “good” ideas:
  - Solutions for existing problems that remain unsolved
  - Less costly solutions compared to existing ones
  - Evolution of various Standards
  - Building on pre-existing solutions
  - Pure fundamental research leading to some applied ideas
- To win, **“you need to be either first or best”**

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# From IP to Product

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- To develop an IP, it takes a lot of intellectual effort, a good implementation and detailed documentation
- To develop a product, it takes a lot of standalone and interoperability testing, financial analysis, and marketing.

*It is thus obvious that building IP is much more amenable to university and startup environments compared to building products*

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# Developing “Standards”

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- Various fields have resorted to standardized IP, such as communications (SIP, SS7, IMS), cellular technology (GSM, GPRS, Edge, UMTS, HSPA, LTE), wireless networks (WiFi, Wimax, Bluetooth, Zigbee)
- Similarly, automotive and avionics have resorted to a myriad of Standards
- Standards are developed by a variety of stakeholders, and are typically open to new participants

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# Developing “Standards”

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- Standards are published in the form of “plain English” description
- The challenge is to translate such description into engineering architecture and design, develop an efficient solution, and do that ahead of others
- Various Standards have mandatory and optional features. It is the latter that can provide means of differentiation
- Various Standards require good knowledge of a combination of Software and Hardware.

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# The “SySDSoft” Story

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- Started inside Cairo University, a group of 4 graduate students led by Khaled Ismail started in designing parts of the wireless USB Standard on behalf of a German company.
- The IP ownership went to the German company, but the team gained tremendous experience and grew from 5 to 70 in 3 years.
- During that period, a variety of wireless Standards such as WiFi, Wireless USB, 3G CDMA-DO, were devolved for various customers worldwide.

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# The “SySDSoft” Story

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- In 2007, Sysdsoft was established based on the group incubated inside Cairo University.
- Instead of offering its design to various global companies, Sysdsoft started building its own IP, mainly in WiMAX and LTE
- In 2009, Sysdsoft became one of the global leaders in owning Wimax and LTE IP.
- In 2011, Sysdsoft sold its LTE IP Intel, forming Intel Mobile Communications Egypt.

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# And the story continues....

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- Sysdsoft continues to develop a revolutionary femto cell solution as a new IP. This is one of the leading global solutions to provide connectivity to homes and enterprises, reducing their reliance on big, expensive cellular basestations
- IPneo was established to focus on a new standard, namely IMS (Internet Protocol Multimedia Subsystem), that allows seamless sharing of voice, data, and video over any communication system (wireless or wired). This is one of the most leading products available in the market to date.

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# Gain for the University

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- Excellent job opportunities are offered to its graduates in a design and development area, rather than more mundane jobs
- Training opportunity for 3d year students during summer time
- Feedback to university provided by Sysdsoft to tailor some courses and programs at the university to become more applied and relevant
- Role model that can be repeated in so many other areas

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