



UNIVERSITI PUTRA MALAYSIA
AGRICULTURE • INNOVATION • LIFE

User Needs for Space Data in Optimizing Agriculture Yield

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Structure for this Talk

- Brief History
- Farmer Needs
- An actual completed project –Web Precision Farmer
- Key Government Initiatives
- Potential implementation approach
- Conclusion

Our very own brief history

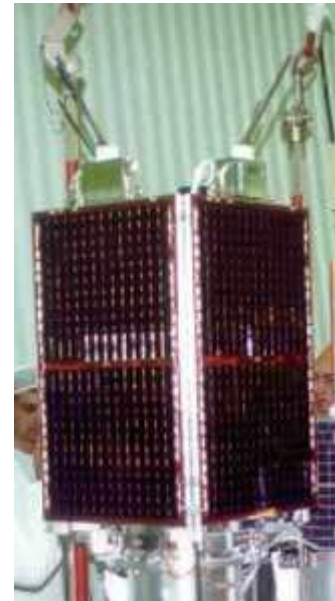
- TiungSat
- Razaksat



TiungSat

TiungSat Launch

27th September 2000

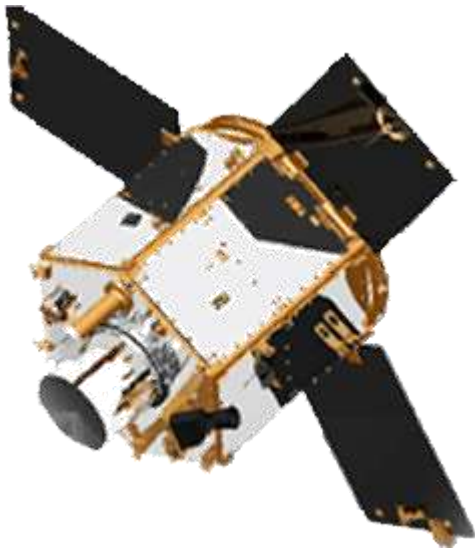


http://ww1.utusan.com.my/pix/2000/0927/Utusan_Express/Front_Page/fp1_big.jpg

RazakSat

Launch date 14 July 2009

- Operator [ATSB](#)
- Launch mass Instruments:
50 kilograms (110 lb)
- Total: 180 kilograms (400 lb)
Power 300 watts



<https://en.wikipedia.org/wiki/RazakSAT>

Farmer needs

- Weather
- Fertilizer
- Pesticides
- Water*

Oil Palm Problems

- Oil Palm

Ganoderma

Bagworms

New layout for replanting

Irrigation???

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Paddy Problems

- Paddy

Leaf Hoppers (Brown/Green Hopper etc)

Irrigation

Harvesting schedules

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Precision Farming

- Precision Farming (PF) or satellite farming or site specific crop management (SSCM) is a farming management concept based on observing, measuring and responding to field and crop variability
- Heart, history and soul of Precision Farming is with satellites evolution and technology

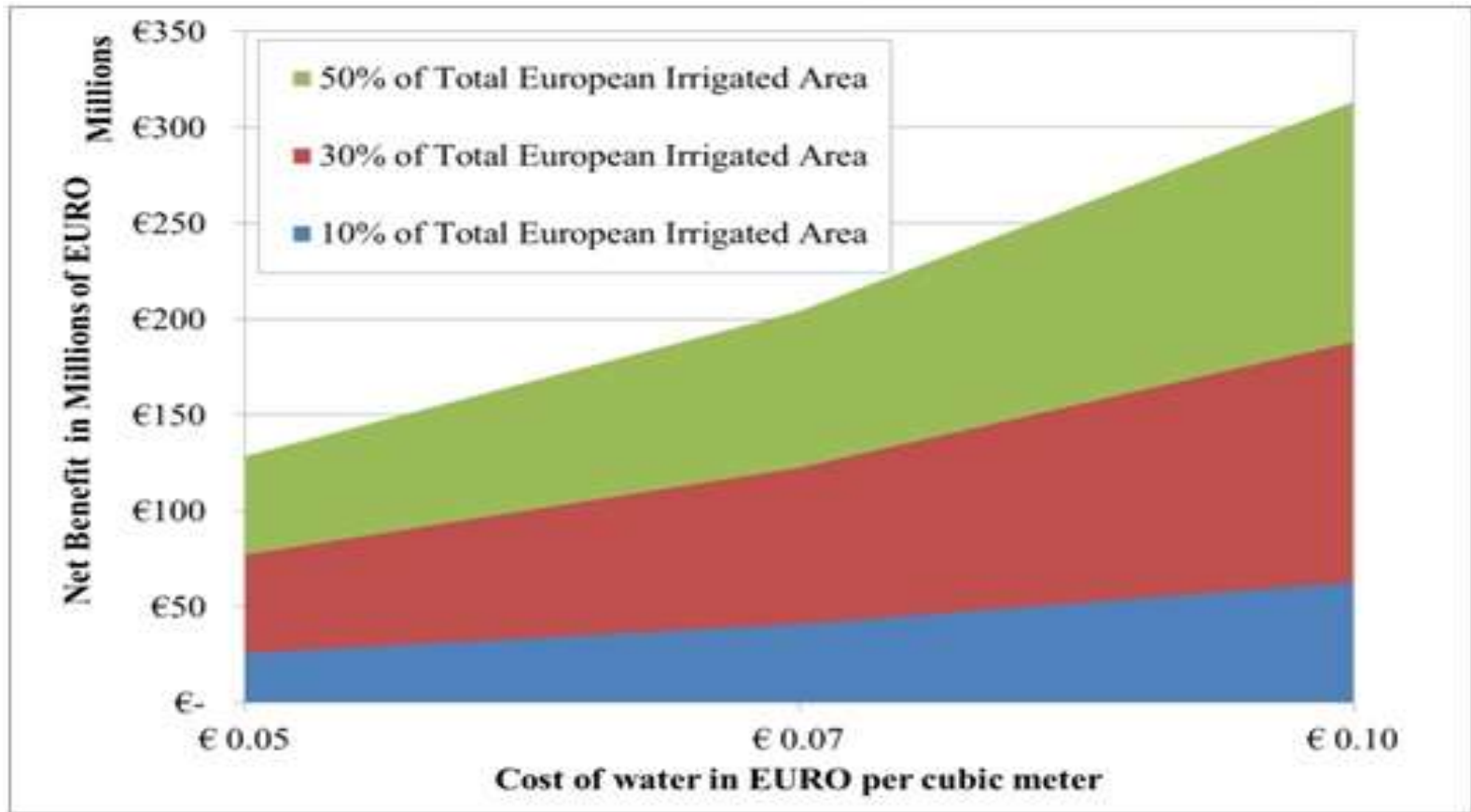


Benefits of Precision Farming

- Improve soil productivity
- Improve water quality
- Improve wildlife habitat
- Sustainable natural resources
- Increase productivity and net profit
- Provide better decision making ability



Irrigation Supported By Satellite



https://www.feedingknowledge.net/02-search/-/bsd/5592/en_GB?controlPanelCategory=portlet_1_WAR_feeding_knowledgeportlet



WEB PADDY GIS



Blue Ocean Strategy

- A shift of attention from supply to demand, from a focus on competing to a focus on *value innovation* – that is, the creation of innovative value to unlock new demand.
- This is achieved via the simultaneous pursuit of differentiation and low-cost. As market structure is changed by breaking the value/cost tradeoff,

Soul of Citizens in Civil Service

- *Merakyatkan Perkhidmatan Awam*

Availability Versus Practicability of Technology

- Gap between Research/Academia and Farmers
- The SAFE Model (JAXA) initiative
- Incorporating Blue Ocean and Soul of Citizens into our projects



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Terima Kasih | *Thank You*