Panel 2: Make or Buy?

++
Core competency? → Buy
Yes ☐   No ☐
↓
People you have are good at this ⇒ {Build}

Buying
↓
Licence conditions
↓
blocking own activities?

To maintain a proper supplier base "buy" is important. Small players are better at innovation

Buy only COTS supporting open standards.
⇒ Promote/create open standards buy

COTS support — how does that fit into ESA contracts? If no support, MAKE

Geo-Return considerations

Only buy what is specific
Reuse OSS/COTS to increase commonalities w/ other applications

WE HAVE THE EXPERIENCE FROM OTHER INDUSTRIES (AUTOMOTIVE, DEFENSE, AERONAUTICS, ETC.). MATLAB & SIMULINK ARE NOT CLOSED BOXES BUT FLEXIBLE AND OPEN TO IMPLEMENT YOUR NEEDS. — MATHWORKS —

BUY OPEN PLATFORM BASED ON MODULAR AND MULTIVENDOR COTS PRODUCTS.
BUILD IF YOU DON'T FIND IT

Open Source provide the best solution, even for space Domain

THE SPACE INDUSTRY IS GOING THE SAME WAY AS GUIDED MISSILE SYSTEMS. IS. FROM A VERY SPECIFIC TYPE OF EQUIPMENT TO A ROUND OF AMMUNITION.

USE FLEXIBLE AND ADAPTABLE COTS TOOLS LIKE MATLAB & SIMULINK. MATHWORKS CAN ADAPT THOSE TOOLS TO YOUR NEEDS, COMPLY TO YOUR STANDARDS (SMP2, FMI, OTHERS).

BUILD AS A COLLABORATIVE OS PROJECT (OPEN SOURCE)

Strong product policy allowing Reuse accross projects.

Open design — Self Build/Buy Options
Arduino/Genuino model

Buy Already existing EuroSim

Model Reuse from outside [or] limited

Flexible usability is a must!

Buy from other domain.
Do not reinvent the wheel

Maturity of Classic Simulators enable BUY

Make allows to keep control

Make! Control our Destiny
but not at all price.

BUY
improve innovation over the Time and allow new players to get involved only with innovative solutions

DO NOT FORGET Intellectual Property.
where is the value?
what can be shared?

Solutions as "ESA open source" projects?

Buy:
- less reinventing the wheel
- (healthy) competition
  ↳ innovation
  ↳ price
- specialize

- ++ Core competency?
  - No: buy
  - Yes: people you have are good at this-> buy
- Buying -> license conditions -> blocking own activities?
- To maintain a proper supplier base "buy" is important, small players are better at innovation
- Buy only COTS supporting open standards -> promote/create open standards
- COTS support: how does that fit into ESA contracts? If no support MAKE
- Geo-Return considerations
- Only buy what is specific, Reuse OSS/COTS to increase commonalities with other applications
- We have the experience from other industries (Automotive, defense, Aeronautics, etc.), Matlab & Simulink are not closed boxes but flexible and open to implementing your needs - mathworks -
- Buy open platform based on modular and multi-vendor COTS products, build if you don't find it
- Open Source provide the best solution, even for Space Domain
- Space Industry is going the same way as guided missile systems i.e. from a very specific type of equipment to a round of ammunition
- Use Flexible and adaptive COTS tools like Matlab & Simulink, Mathworks can adapt those tools to your needs comply to your standards (SMP2, FMI, others)
- Build as a collaborative OS project (open source)
- Strong product policy allowing reuse across projects
- Open design - self build/buy options Arduino/Genuino model
- Buy already existing EuroSim
- Model reuse from outside limited
- Flexible usability is a must !
- Buy from other domain, do not reinvent the wheel
- Maturity of Classic Simulators enable BUY
- Make allows to keep control
- Make ! Control our destiny but not at all price
- BUY: improve innovation over the time and allow new players to get involved only with innovative solutions
- Do not forget intellectual Property. Where is the value? What van be shared?
- Solutions as "ESA open source "projects?
- BUY:
  - less reinventing the wheel
  - (healthy) competition-> innovation -> price
  - specialize