

Shifting Left: How Early UX and Front-End Integration Disrupts Traditional Development for Better Ground Systems

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How to improve Ground Systems with UX

Discover user and system needs early

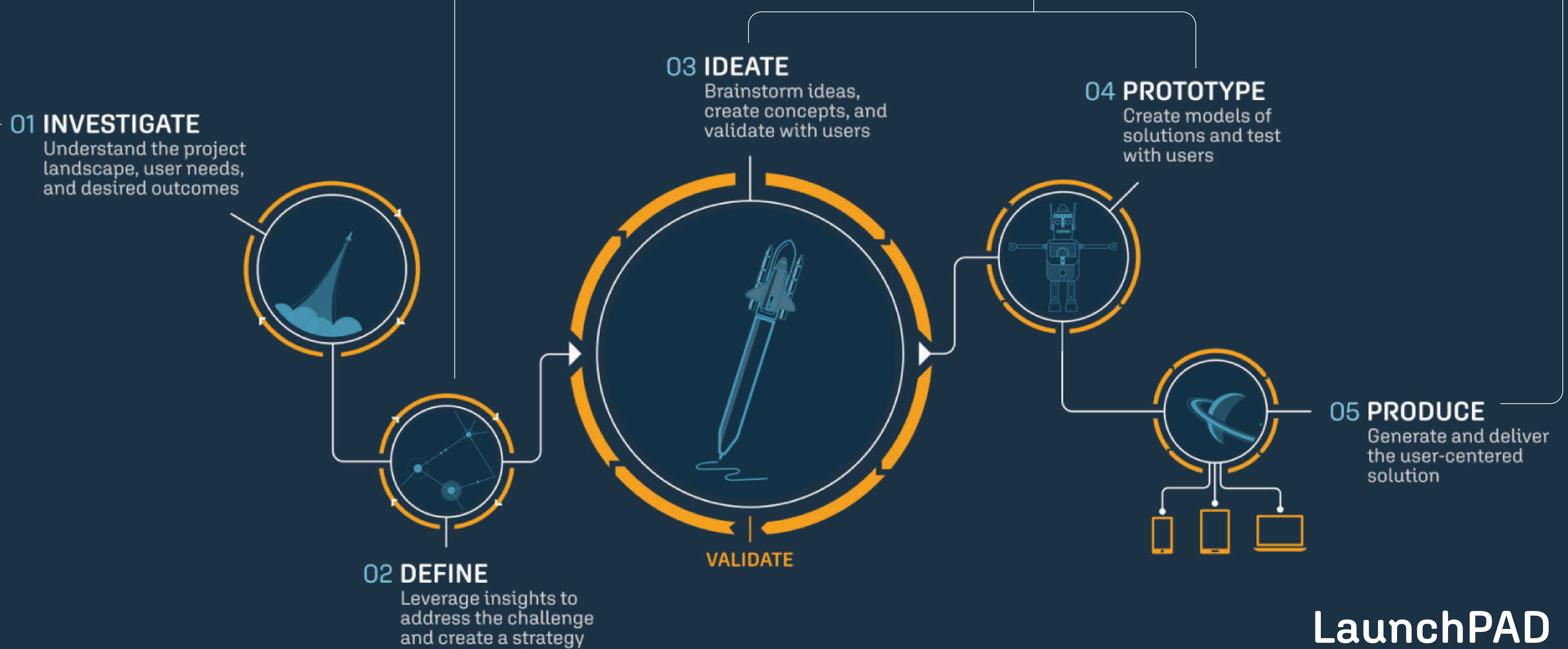
- **Observe and interview operators** to understand needs and pain points
- **Model role and task relationships** with experience maps, service design blueprints, and workflows
- Conduct participatory workflow sessions to **help organizations imagine future possibilities** like automation

Shift validation to the left

- **Conduct regular artifact reviews** with stakeholders and operators
- Use wireframes and mock-ups to **gather feedback and share concepts**
- **Conduct usability testing** with high-fidelity prototypes to test how well features meet operator and performance goals

Improve usability and reduce training burdens

- **Utilize a design system** such as Astro UXDS for a consistent look and feel
- **Modernize applications** to meet expectations operators have from the commercial world
- **Design automation and AI support** using a transparency framework



Early waterfall processes had limited feedback loops, were not adaptable for modern product teams, and did not have a mechanism for gracefully handling the tempo of change found on modern missions.

Changing from Waterfall to "Agile" isn't enough.

A modern process shifts problem discovery and validation to the left by including user feedback loops and iterative human-centered design. Rocket uses the LaunchPAD design process in tandem with Agile development.



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