

FINDING + ADOPTING EMERGING TECHNOLOGY SOLUTIONS

GUIDE FOR
COMMERCIAL
LEADERS



ZYLTER

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GUIDEBOOK OVERVIEW + ORGANIZATION

Early-stage ventures, such as “startups”, are a diverse and growing source of novel capabilities to improve and expand commercial operations. Finding practical and impactful solutions in this rapidly-changing innovation landscape requires a systematic approach based on a clear understanding of organizational priorities and an expected return on investment (ROI).

This guide provides a resource for commercial leaders to navigate the emerging technology landscape and identify truly promising innovations to improve operations. Zylter developed this approach based on our extensive work with innovators and commercial leaders in Silicon Valley, Seattle and many field locations.

[Zylter](#) is a Silicon Valley company built on a passion for applying emerging technologies. To address commercial challenges. See [Page 16](#) to for description of our capabilities and contact information.

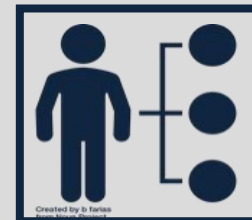
1

IDENTIFY PRIORITY ORGANIZATIONAL + USER NEEDS



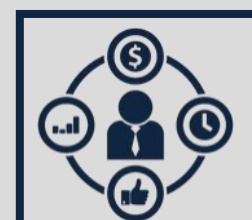
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IDENTIFY + ASSESS EMERGING CAPABILITY ALTERNATIVES



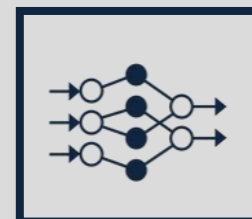
3

BUILD BUSINESS CASE FOR EMERGING SOLUTION ADOPTION



4

TRANSLATE USER NEEDS INTO PRODUCT / SERVICE REQUIREMENTS



5

SOLICIT + ACQUIRE EMERGING TECH PRODUCT / SERVICE



6

DEPLOY + SUPPORT SELECTED SOLUTION



1

IDENTIFY ORGANIZATIONAL USER NEEDS

Due to the diversity and dynamic nature of the tech-based startup and early-stage venture landscape, focusing your search and engagement will require a clear understanding of the most pressing needs or opportunities you seek to address.

Identify Key Organizational Challenges + Opportunities

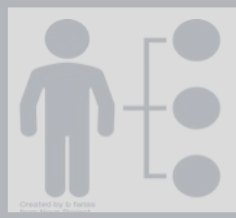
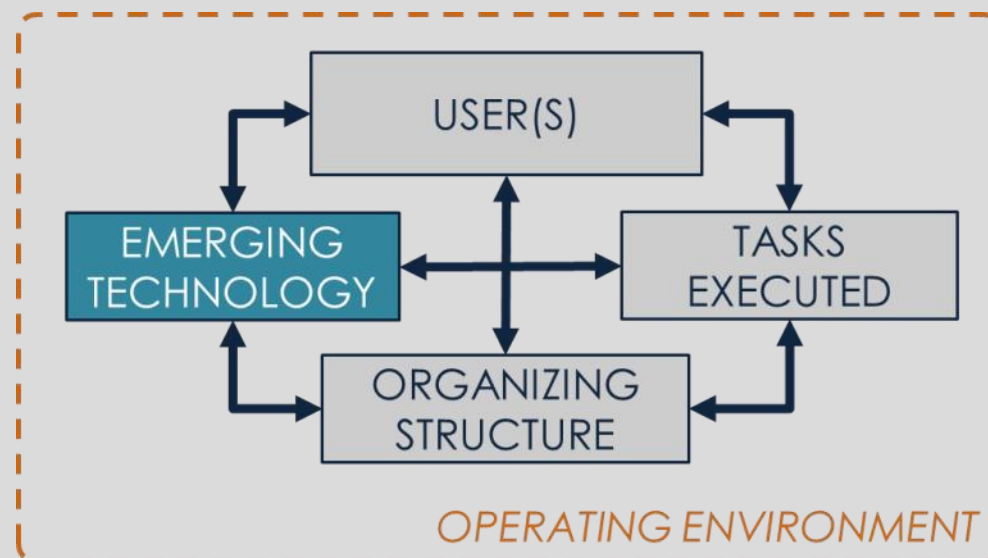
Describe the key operational or strategic opportunities for (or challenges to) growth that should be addressed through emerging technology products and services.

Identify Key Organizational Constraints

Determine the regulations, culture, supporting resources or other factors that will challenge or preclude promising innovations.

Describe Sociotechnical System Aspects for Solution

Understand each aspect of the sociotechnical system (below) factors that will influence the needs to address, appropriateness of possible solutions and long-term impacts of implementation.



2

IDENTIFY + ASSESS EMERGING CAPABILITY ALTERNATIVES

Due to the diversity and dynamic nature of the startup and early-stage landscape, focusing your search and engagement will require a clear understanding of the most pressing needs or opportunities you seek to address.

Conduct Initial Technology Scan

- Review-industry-specific technology analysis and reports
- Identify key concepts and terms of art
- Collect product-specific information
- Engage product developers

Consider Technology + Manufacturing Readiness Of Solutions

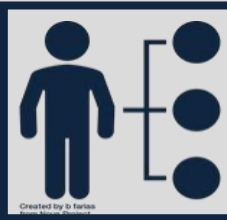
Technology Readiness Level (TRL): Indicators of the maturity level of particular technologies for an intended use (below)

Manufacturing Readiness Level (MRL): Demonstrated ability of organization to generate and fully support key offerings

European Commission Technology Readiness Levels (TRLs)

TRL 1	Basic principles observed
TRL 2	Technology concept formulated
TRL 3	Experimental proof of concept
TRL 4	Technology validated in lab
TRL 5	Technology validated in relevant environment
TRL 6	Technology demonstrated in relevant environment
TRL 7	System prototype demonstrated in operational environment
TRL 8	System complete and qualified
TRL 9	Actual system proven in operational environment

Source: [European Commission Technology Readiness Level FAQ](#)



3

BUILD BUSINESS CASE FOR EMERGING SOLUTION ADOPTION

Adoption of innovative capabilities, services or approaches often requires organization resources and, therefore, support from key stakeholders. A practical and well-supported business case is key for explaining a innovative opportunity and the value it will generate for the organization.

Identify Key Lifecycle Implications

Describe the key operational or strategic opportunities for (or challenges to) growth that should be addressed through emerging solutions.

Identify Return on Investment (ROI) Factors

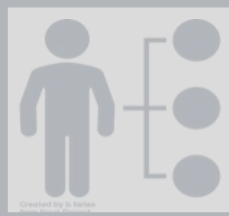
Identify the operational and economic factors that must be considered to assess all investment costs and resulting benefits, to include the probability of realizing benefits.

Define Strategic Value of Solution Investments

Assess long-term benefits or opportunities the solution will enable, to include a qualitative description of the timeline, key beneficiaries, and emerging opportunities associated with the investment.

Stakeholder Analysis, Engagement + Management

Identify and prioritize each internal and external stakeholder group that can influence the success of solution adoption, as well as each group's priority interests and methods of engagement.



4

TRANSLATE USER NEEDS INTO PRODUCT REQUIREMENTS

Assessment, comparison and selection of early-stage solutions to address organizational needs requires turning generally qualitative user requirements into a set of specific technical attributes. These attributes provide a basis to systematically describe, compare and select potential solutions.

Determine Measurable Attributes of the Successful Solution

Identify the key technical and performance attributes that can be objectively measured for assessment and comparison of solution options

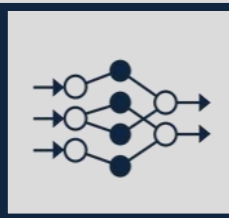
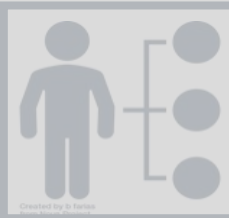
Identify Measures to Assess Solutions

Determine values to enable solution measurement, assessment and comparison:

- **Key Performance Parameters:** Solution capabilities so significant that failure to meet the desired performance is cause for program reassessment or termination
- **Measures of Effectiveness:** How well solution accomplishes an operational task
- **Measures of Performance:** Required actions to accomplish a MOE

Forecast Support Requirements

Identify and plan for infrastructure, enabling systems, repair, maintenance, upgrade and disposition capabilities required to effectively support the solution across its entire life cycle



5

SOLICIT + ACQUIRE EMERGING TECH PRODUCT / SERVICE

Most commercial procurement of early-stage products or services should begin with low-rate piloting prior to full-scale purchase and deployment. This allows solution testing and refinement in actual use conditions prior to full solution roll out.

Develop Tech-Based Solution Assessment Framework

Develop and apply a scheme to weight and rank solutions based on the priority technical attributes identified in STEP 4.

Identify Organizational Requirements for Solicitations

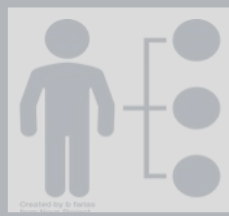
Identify the organizational processes, programs and administrative requirements to acquire the selected emerging tech solution once identified. Requirements are often based the amount and type of funding required.

Develop + Publish Solicitation

Compile and publish the information required to describe the desired solution for prospective vendors, such as a tender including a Scope of Work (SOW) or Performance Work Statement (PWS).

Select + Acquire Offering

Apply developed assessment framework proposal to compare offerings across salient proposal aspects. Based on the identified priorities select the solution offering that best meets the identified technical requirements.



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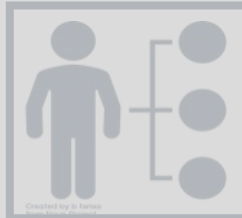
DEPLOY + SUPPORT OPERATING SOLUTION

Due to the diversity and dynamic nature of the startup and early-stage landscape, focusing your search and engagement will require a clear understanding of the most pressing needs or opportunities you seek to address.

Determine Initial Deployment Requirements

Identify the initial actions and responsible actors (e.g., company, vendor, third-party, etc.) to successfully implement the selected solution. Key requirements include:

- Solution delivery, installation and integration with existing systems
- User and support staff training
- Warrantied services



Determine Long-Term Support Requirements

Identify long-term support requirements to enable effective and efficient use of the emerging technology solution

- New user and support staff training
- Sustainment and repair capabilities (parts, labor, etc.)
- Routine updates and modernization

Develop Long-Term Concept of Support

Determine general plan for meeting identified support requirements based on identification and assessment of alternatives (organic support, vendor support, third-party support, etc.)



ZYLTER CAPABILITIES + GLOBAL PROJECT PORTFOLIO

Zylter works with market leaders and innovative product developers to turn emerging technologies into value-creating capabilities for logistics, engineering and defense. We seek out and excel at global projects requiring analysis, design and engineering to deliver bespoke capabilities. Contact us for more information or to provide input to improve this resource.

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ZYLTER EMERGING TECH PORTFOLIO AREAS

1

Unmanned Ground Systems

2

Unmanned Aerial Systems

3

System Integration Software

4

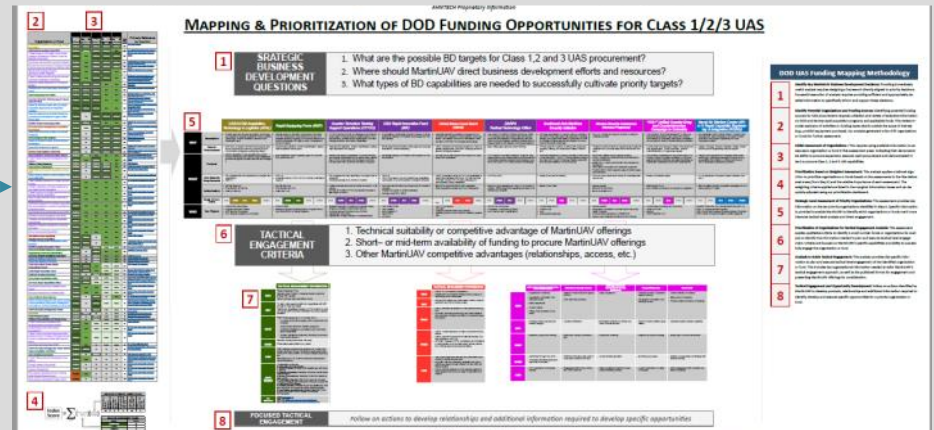
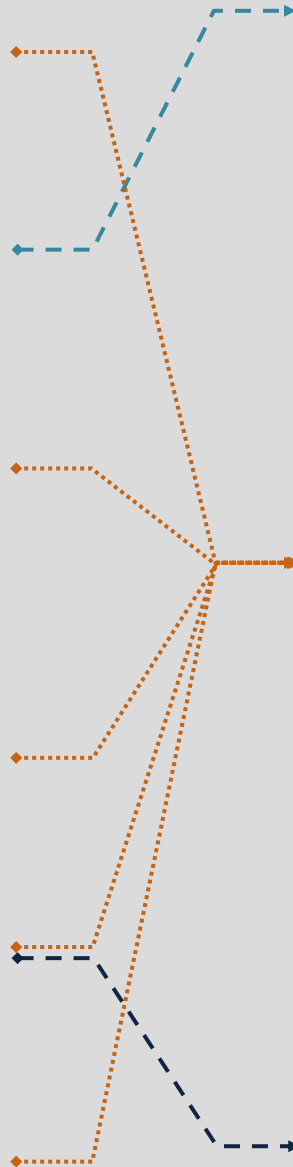
Info Collection, Analysis + Big Data

5

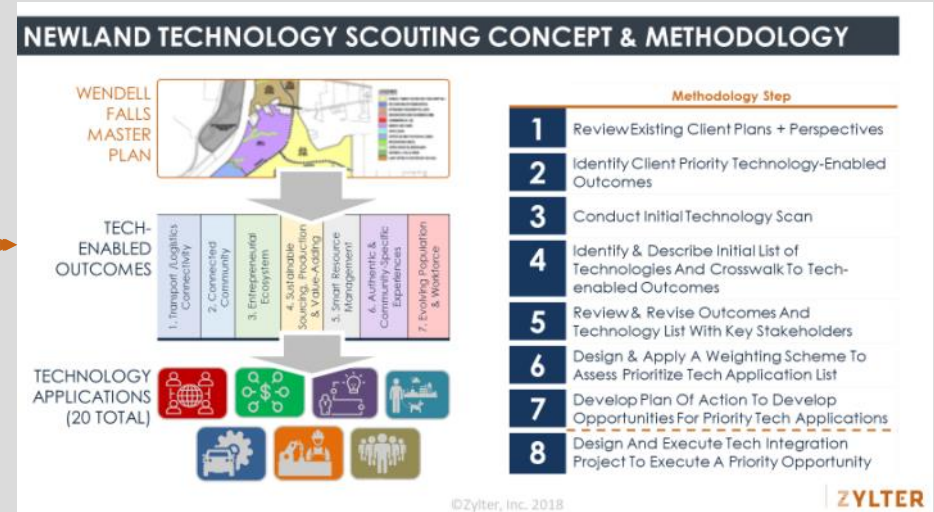
Virtual / Augmented Reality (VR/AR)

6

Enabling Technologies



MartinUAV Market Roadmap for Class 3 VTOL Drones



Newland Communities Technology Assessment for Next Generation Community Design



Talespin Market + Product Development for Commercial Use of Virtual Reality

Create. Technology. Zylter.



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