Non-dilutive Funding to Bootstrap Your Startup

How to use contract research and development to support your company’s growth and create successful new products

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The Entrepreneur’s Conundrum:

*More product development is needed to raise the company’s value, but I have to give up too much equity to fund development.*
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The Solution

Product Development Through Contract R&D

- Use contract or grant funding to support part of product development
- The income gives your company time to grow and increase in value before seeking venture partners, *always be profitable*
- Align product/technology development goals with R&D needs
- Initiate and expand intellectual property
- Attract and hold high quality staff
Who funds Contract R&D?
What organization would:

• Pay you to develop new technology?
• Pay you in full whether you succeed or fail?
• Let you collect a reasonable fee?
• Let you own the resulting intellectual property?
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Answer: The US Federal Government and State Agencies

• Broad Agency Announcements
• Requests for Proposals
• Small Business Innovative Research
Why do federal and state governments support contract R&D and grants?

• Create jobs

• Maintain international technological superiority - Commercial and Military

• Obtain useful technology for government applications – Defense, Border Security, NASA
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**Summary of Federal Government R&D Approaches**

<table>
<thead>
<tr>
<th>Approach</th>
<th>Pros</th>
<th>Cons</th>
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<tbody>
<tr>
<td>SBIR/STTR</td>
<td>The money is there, it’s the law</td>
<td>It takes a long time to get to significant funding; it is <strong>VERY</strong> competitive</td>
</tr>
<tr>
<td>Broad Agency Announcement (BAA)</td>
<td>Wide range of topics</td>
<td>The money is <strong>not</strong> there, you have to find a source</td>
</tr>
<tr>
<td>Request For Proposal (RFP); or “Call” amendment to BAA</td>
<td>Addresses a real problem; funding is there</td>
<td>Other bidders have already made contact, alignment with your technology may be difficult</td>
</tr>
<tr>
<td>Team up with Prime</td>
<td>Don’t have to do the hard work marketing</td>
<td>You may be significantly down-sized upon award</td>
</tr>
<tr>
<td>Other Transaction Authority (OTA)</td>
<td>Open to non-traditional contractors; avoids FAR</td>
<td>Need to negotiate a contract</td>
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</tbody>
</table>
Federal government funded $27 billion R&D in 2014
- $19 billion for DOD
- Most toward aerospace, tech services, and cyber
- $4.3 billion to small (<500 employees) businesses

Source: National Center for Science and Engineering Statistics
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Why would you want Contract R&D for Non-dilutive funding?

• Get the money you need to complete product or technology development
• Maintain staff over times of low product sales
• Attract and hold high quality staff
• Develop a patent portfolio
• Get favorable visibility for you company
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Example: Building a Division Solely With Non-dilutive Contract R&D

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Example: Product Development Consortium though Non-dilutive Licensing

Product: High Barrier Plastic Bottle for Beer

<table>
<thead>
<tr>
<th>Role</th>
<th>Funding</th>
<th>License</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer Producer</td>
<td>$50K</td>
<td>Exclusive for beer worldwide for 2 yr</td>
</tr>
<tr>
<td>Bottle Manufacturer</td>
<td>$1,500K</td>
<td>Exclusive for beverage bottles worldwide for 2 yr</td>
</tr>
<tr>
<td>Bottle Machinery Manufacturer</td>
<td>$100K</td>
<td>Exclusive Europe and Japan for bottle machinery for 2 yr</td>
</tr>
<tr>
<td>Specialty Plastic Supplier</td>
<td>$200K</td>
<td>Exclusive worldwide for high barrier plastic for beverages for 2 yr</td>
</tr>
<tr>
<td>Total</td>
<td>$1,850K</td>
<td>Two year product development Consortium</td>
</tr>
</tbody>
</table>

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What to watch out for in using contract R&D for non-dilutive bootstrapping

• Align your product/technology development needs with the needs of the funding agency; this is not always possible
• Be patient, this could take 12 to 18 months or more to really get moving
• Manage the work; don’t lose your commercial product focus
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Suggestions for using Contract R&D to Bootstrap your Company

• Learn to write winning proposals
• Understand how to sell contract R&D – it’s much different than VC and other equity funding
• Create a strong intellectual property position
• Train the staff in program management and business development
• Be able to handle the “red tape”
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• Top 3 things in winning proposals
  – Address the customer’s problem
  – Read and follow the instructions
  – Mind the evaluation criteria

• Top 3 things in losing proposals
  – Poor explanation of technical approach
  – Personnel not qualified
  – No clear path to commercialization or implementation
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Thank you

Questions?