
The Founding Angel Concept: Very Early-Stage Engagements as Attractive Investment Strategy

Background, Approach, Selected Biotech Examples

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ETH

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1**Background and Motivation**

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Approach and Technologies

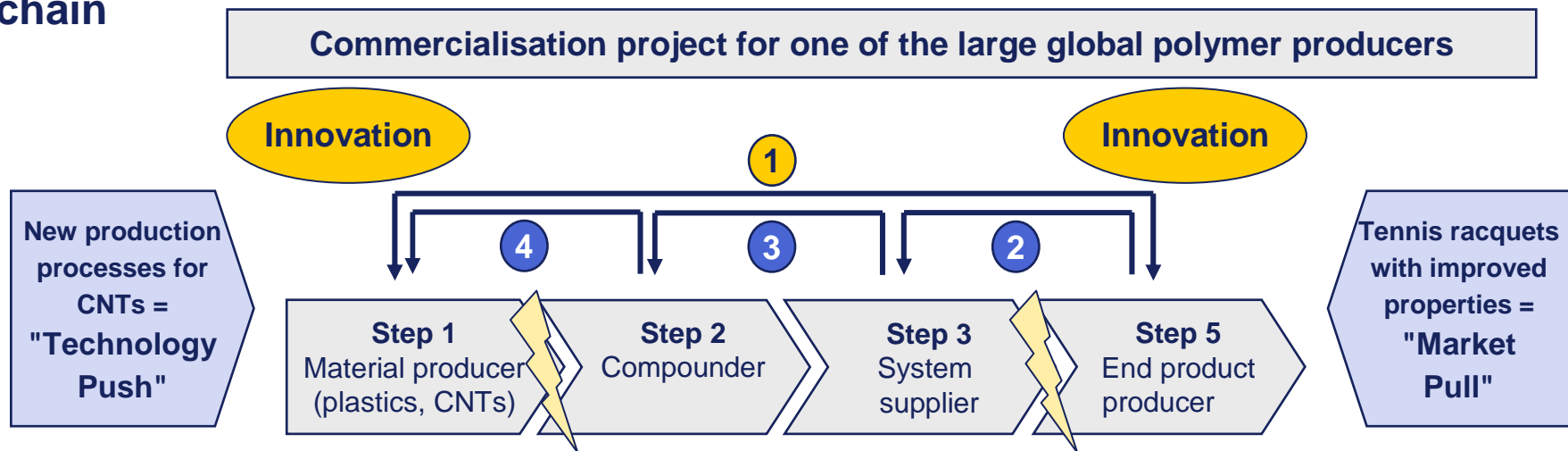
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Selected Biotech Examples

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Conclusion and Learning Effects

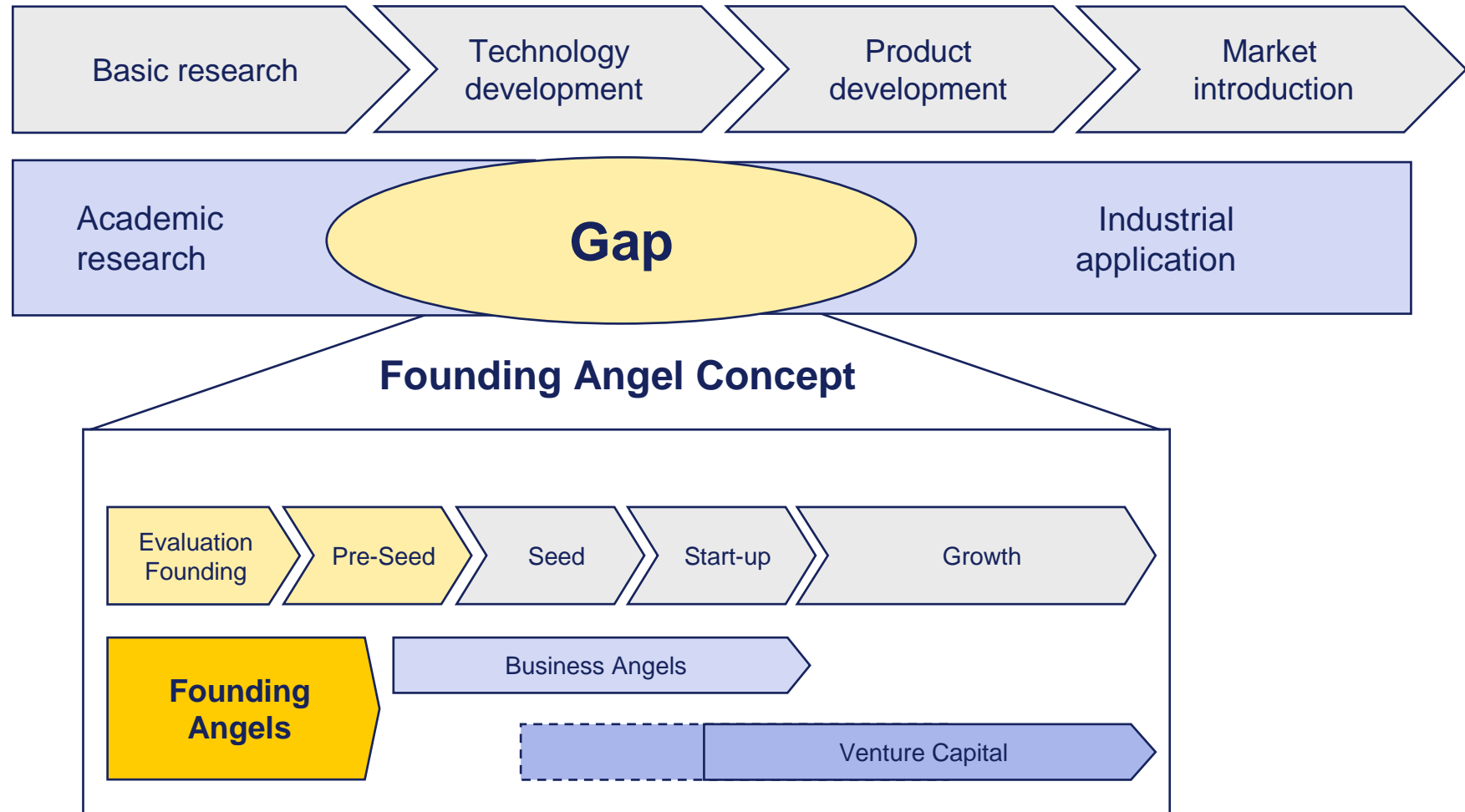
Start-ups are of high importance as innovation drivers along the whole value chain



- 1 The material producer (plastic, CNTs) develops an innovative component (racquet frame) together with an end product producer (tennis racquets)
- 2 The end product producer develops the component together with a plastics manufacturer as system supplier (frame manufacturer)
- 3 The system supplier obtains the material from a compounder (producer of the plastics manufacturer's raw materials)
- 4 The compounder obtains the material from the material producer (plastic, CNTs)

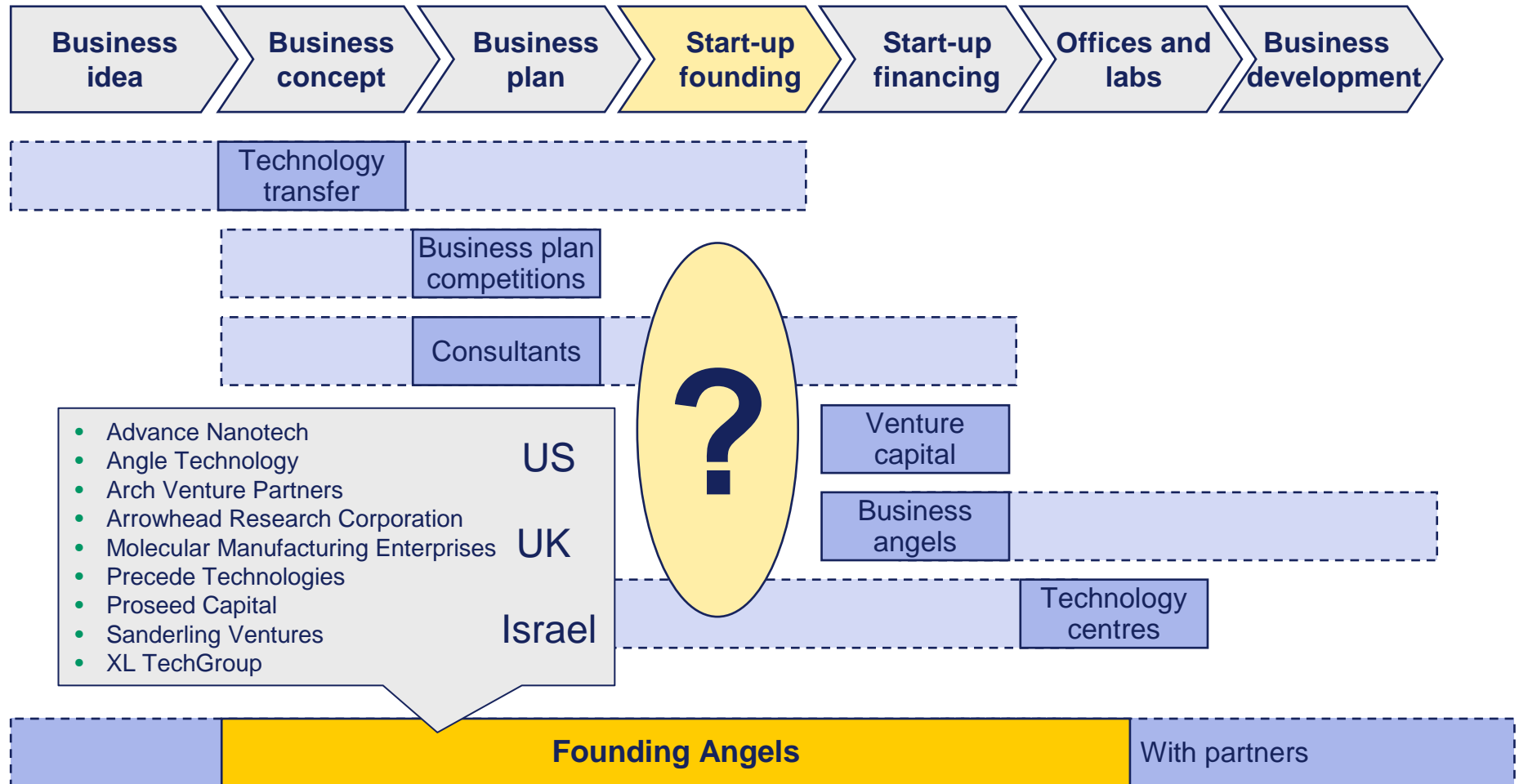
Whole value chains are of importance and start-ups are "value chain catalysts"

The Founding Angel science-to-business concept is to close the gap between academic research and the commercialisation of the research results

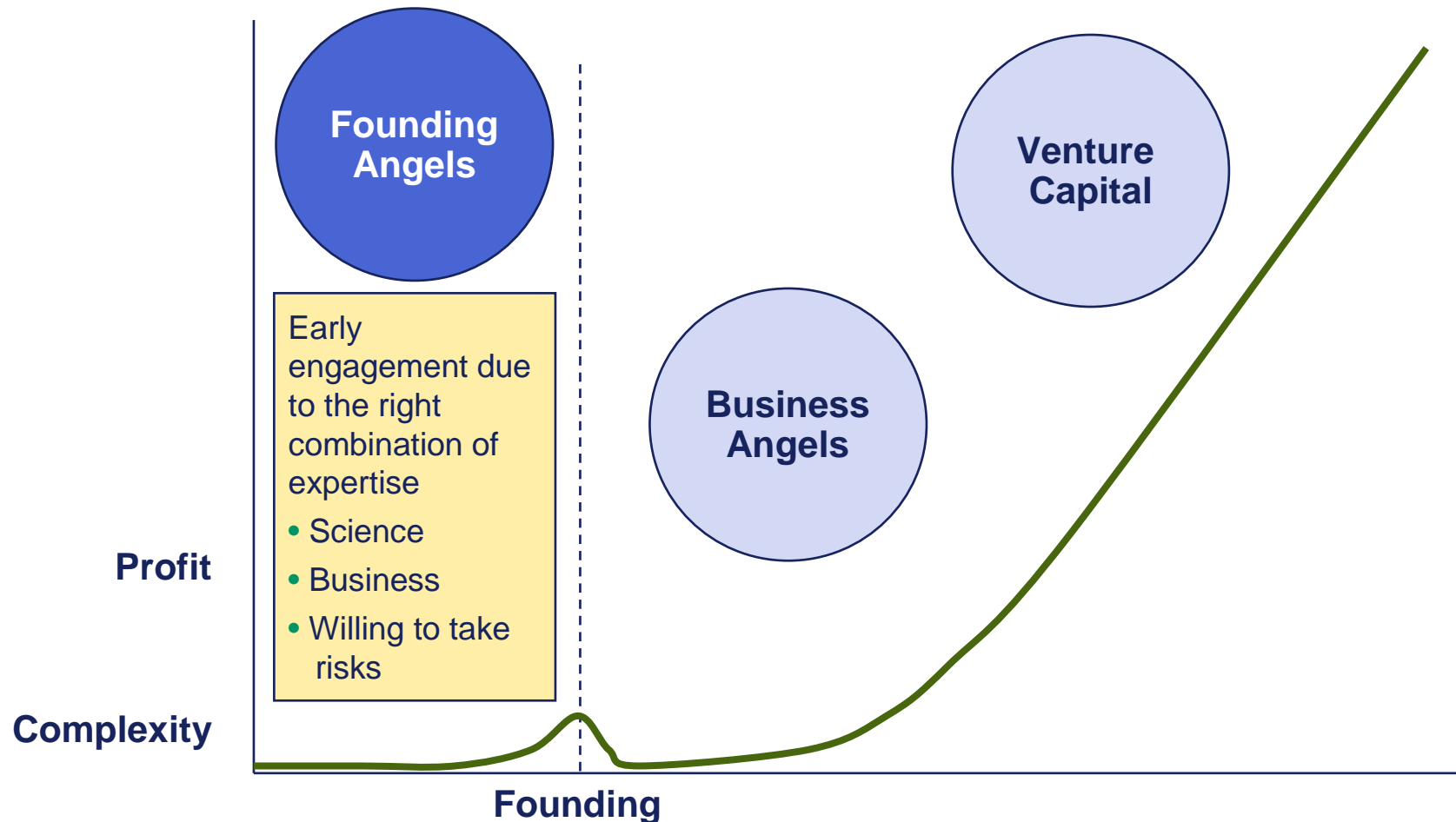


Background and Motivation - Founding Angels

Founding Angels are filling the gap between established business models within the start-up area



Founding Angels are engaged in very early phases typically before the engagement of Business Angels and Venture Capital



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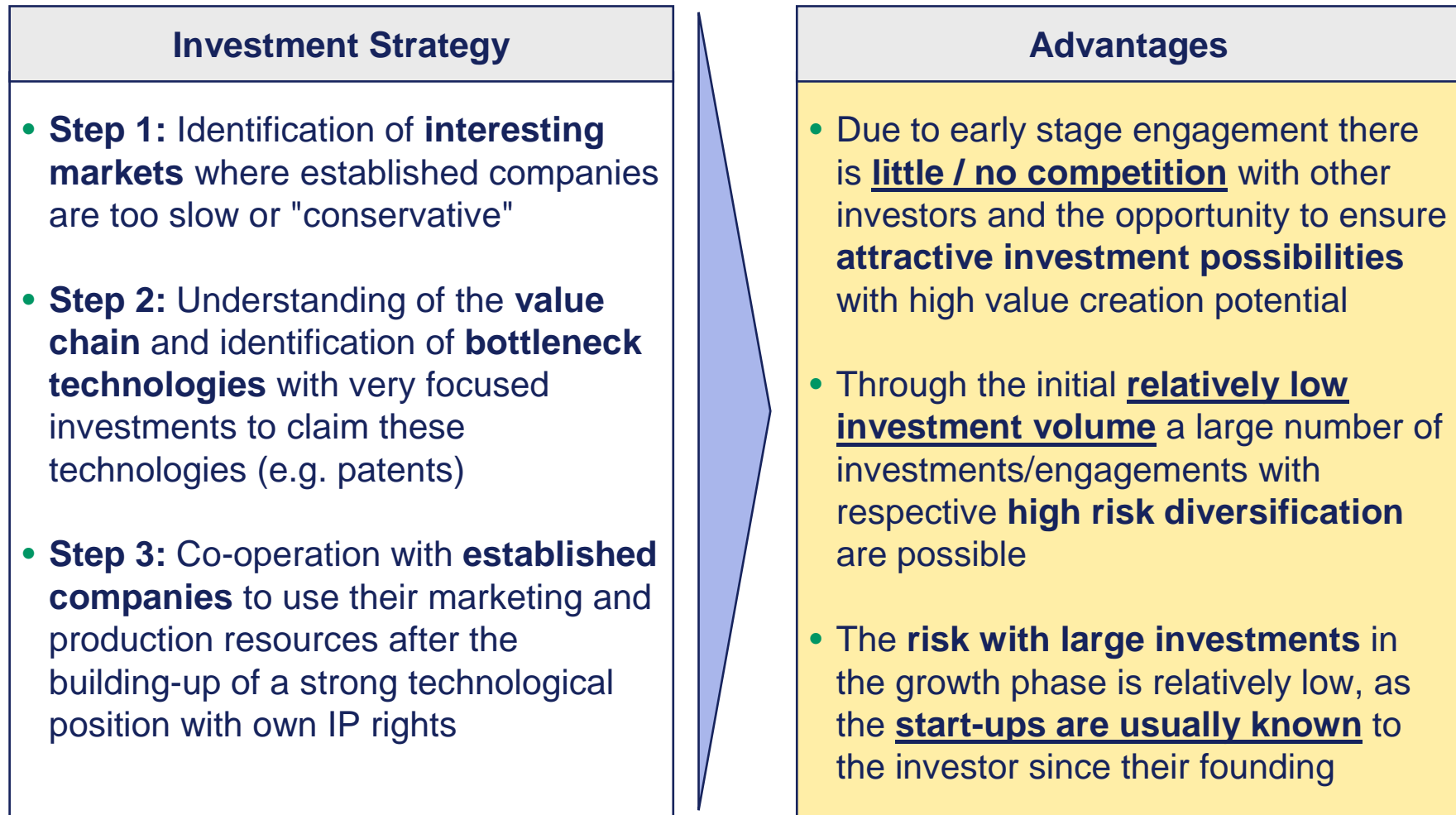
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Selected Biotech Examples

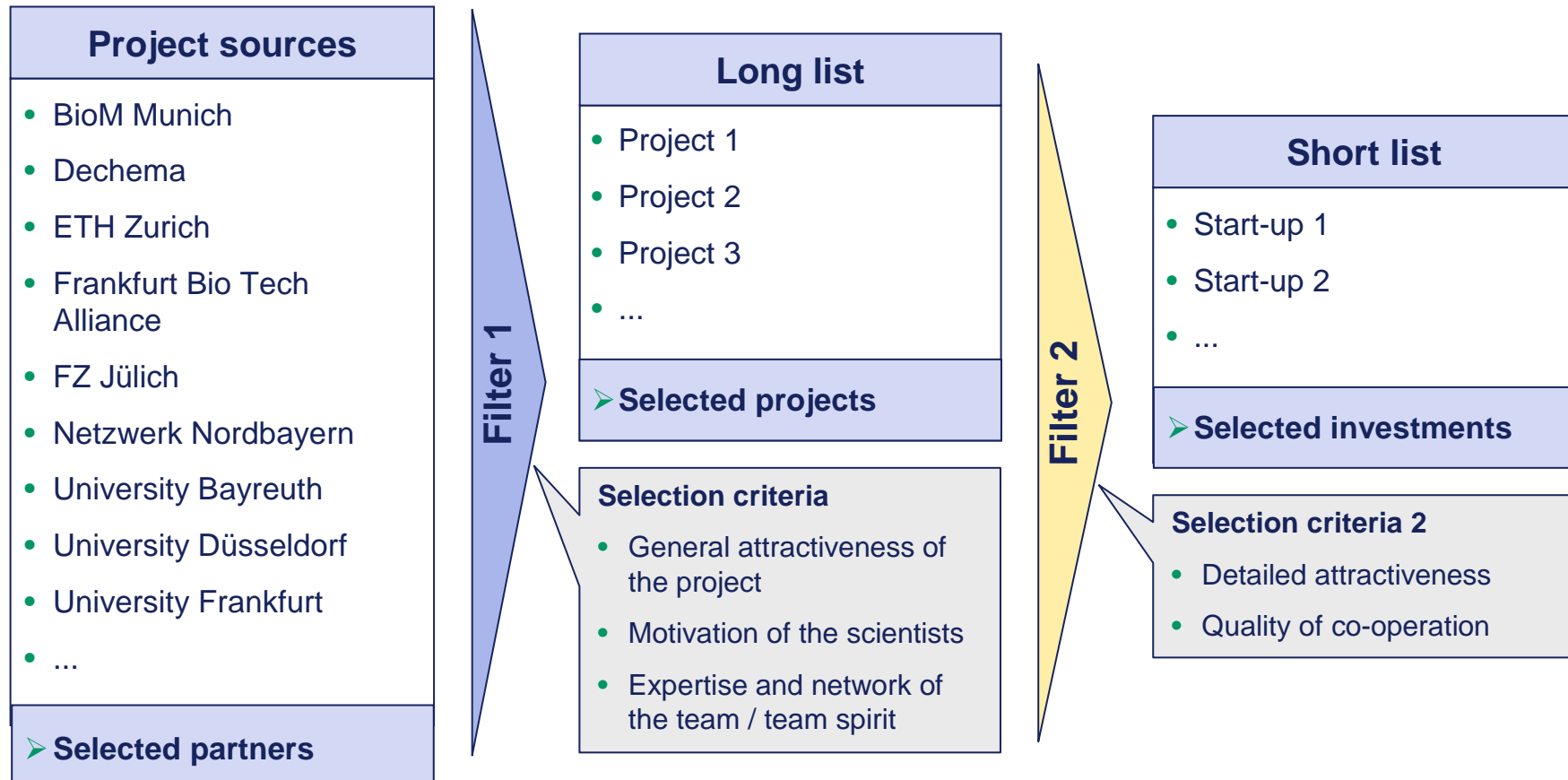
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Conclusion and Learning Effects

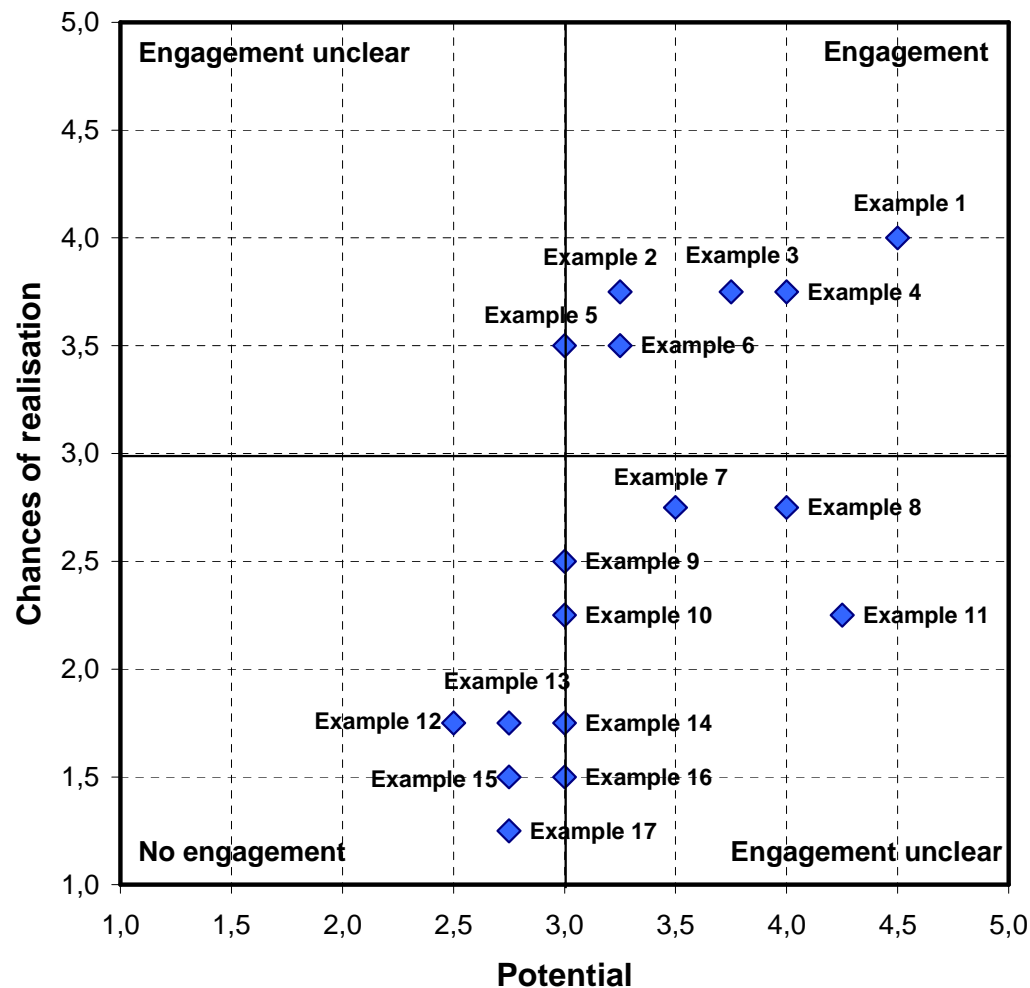
The Founding Angel science-to-business concept offers clear advantages due to its innovative concept



The most attractive projects are identified with a well-structured two stage selection process



FESTEL CAPITAL has evaluated around 20 projects and 4 of the most promising projects have been realised (2/2)



Examples

1. Biofuel technology
2. Biotech company
3. Biomass/bioenergy technology
4. Biotech company
5. Energy saving technology
6. Wound healing
7. Drug discovery
8. Molecular diagnostics, biochips
9. Bioactives, functional food
10. Nanomaterials
11. Wellness
12. Chemical compounds
13. Waste water treatment
14. Drug discovery
15. Wound healing
16. Energy technology
17. Hydrogen technology

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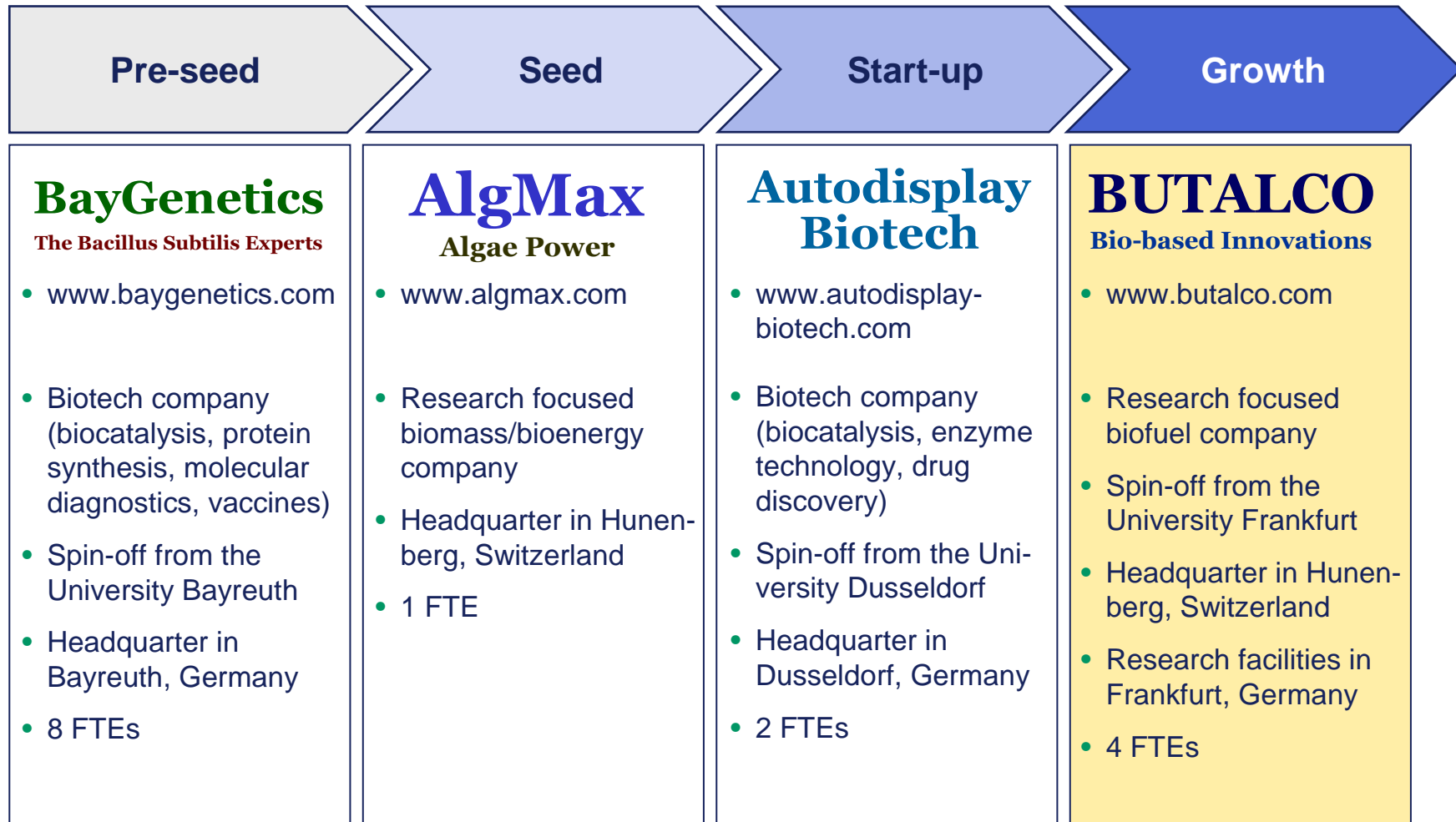
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Conclusion and Learning Effects

Four companies in the field of biotechnology have been founded within the last two years



BayGenetics is in the pre-seed stage and is performing first steps towards the proof-of-concept of its technology

BayGenetics GmbH / Bayreuth, Germany

BayGenetics

The *Bacillus Subtilis* Experts

- Research results of Prof. Wolfgang Schumann from the University Bayreuth enable new applications in the areas of biocatalysis, protein synthesis, molecular diagnostic and vaccine development
- In 2007, Dr. Gunter Festel financed work into the investigation of market potential and patent situation, took care of external recruitment and developed a business plan
- Dr. Markus Helfrich with the help of an EXIST grant strengthened the management and scientific team
- Prof. Wolfgang Schumann, Dr. Markus Helfrich and Dr. Gunter Festel founded BayGenetics in May 2008
- A co-operation contract with the University Bayreuth enables BayGenetics to use resources at the university
- Currently, first discussions with industrial partners and investors are being held

AlgMax is in the seed phase looking for investors to strengthen research and development

AlgMax GmbH / Hunenberg, Switzerland



- Dr. Andreas Maack as algae expert is developing an interesting algae technology to produce biomass and bioenergy with higher yields compared to existing technologies
- Dr. Andreas Maack and Dr. Gunter Festel founded AlgMax in May 2008 to secure funding of the further research and development work
- The first patent application is in progress and co-operations with industrial partners are being discussed

Autodisplay Biotech is in the start-up phase and focused on business development

Autodisplay Biotech / Dusseldorf, Germany

Autodisplay Biotech

- Prof. Joachim Jose from the University Dusseldorf has developed an autodisplay technology as basis for new applications in the areas of biocatalysis, enzyme technology and drug discovery
- Prof. Joachim Jose, Dr. Ruth Maas and Dr. Gunter Festel founded Autodisplay Biotech in May 2008
- A co-operation contract with the University Dusseldorf enables Autodisplay Biotech to use resources at the university
- A co-operation contract with IPB AG gives access to intellectual property gained within research projects financed by IPB AG
- Currently, first discussions with industrial partners and investors are being held

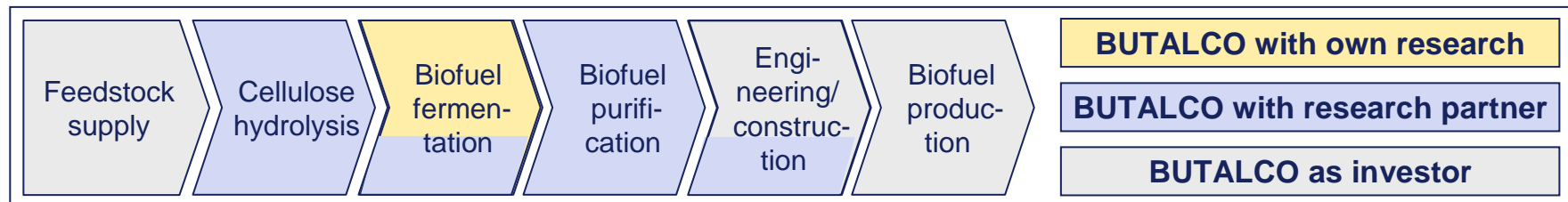
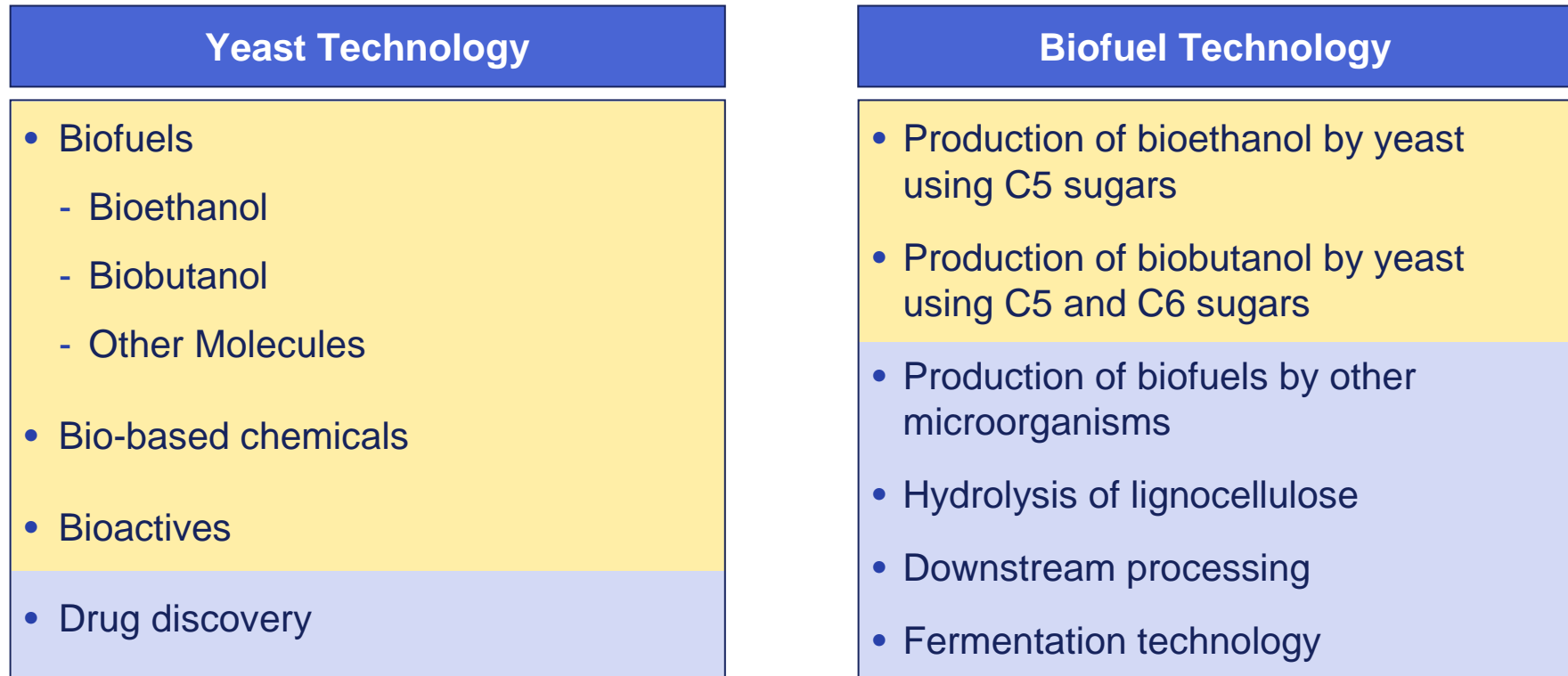
Butalco has found an external investor and is now in the growth phase

Butalco GmbH / Hunenberg, Switzerland

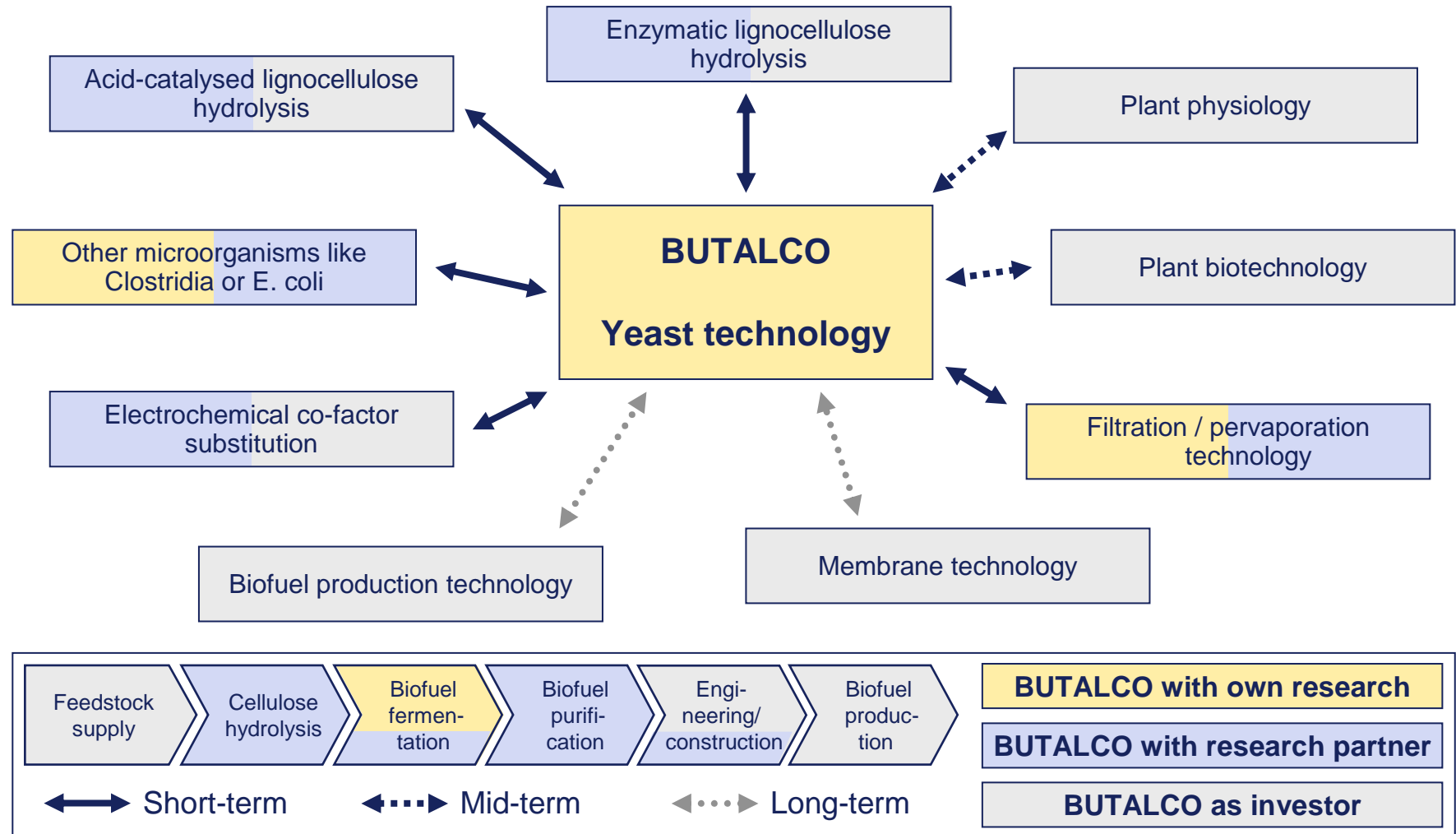
BUTALCO
Bio-based Innovations

- Prof. Eckhard Boles from the University Frankfurt has developed a very promising scientific approach for the production of 2nd generation biofuels and other bio-based chemicals
- Prof. Eckhard Boles and Dr. Gunter Festel founded Butalco in August 2007 for the further development and commercialisation of the results
- Meanwhile, Butalco has three co-operation contracts with the University Frankfurt, two patent applications claiming important bottleneck technologies and an agreement regarding the takeover of patents from partners
- Butalco's aim is to become a leading yeast and biofuel technology company in Europe
- The wind energy company Volkswind GmbH, as external investor, gives Butalco the financial power to realise this aim

BUTALCO carries out own research in the core areas and will act as an investor in neighbouring areas



BUTALCO is to develop technologies together with partners and to invest in other biofuel areas



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Conclusion and Learning Effects

The definition of the best practice process provides a framework to control risk and to manage the investment

- **Phase 1 - Screening/sourcing:** venture opportunities are sourced, filtered and appraised to identify those which have the highest potential and the best fit
- **Phase 2 - Foundation of start-ups:** a new company is formed and an option agreement is signed with the technology partner providing exclusive rights regarding the relevant IP; the IP option is exercised in exchange for a pre-agreed equity stake of the new start-up company for the technology partner
- **Phase 3 - Commercialisation strategy:** the new company selects the optimum commercialisation strategy for the specific IP and identifies the new management who will take over responsibility
- **Phase 4 - Business development:** the new company implements the chosen strategy utilising the "founding angel's" seed funding and management support to build and operate the company, typically focusing on R&D activities and partner negotiations
- **Phase 5 - Exit:** after succeeding in meeting key milestones, building a viable proposition, a clear exit strategy has been devised to enable conventional third-party investment to be introduced on attractive terms; additional investment is used to pursue the exit strategy and enter in partnership with its new owner

The results of our four founding angel projects show clear key success factors / learning effects

Key success factors		
Evaluation competence	Lean / low-cost activities	Team
<ul style="list-style-type: none">• Focus on certain ("hot") topics• Expert knowledge (understanding all relevant technical and commercial aspects)• Right level of details• Realistic view	<ul style="list-style-type: none">• Efficient processes• Low fix cost position (e.g. no salary/compensation for the founders and advisory board up to the break-even-point)	<ul style="list-style-type: none">• "Personal chemistry" between the partners (team spirit, team work, respect, trust)• Value of industrial investors and appropriate behaviour (transparency, cost effectiveness, commitment, team spirit)

Operational proof-of-concept: yes / Financial proof-of-concept: open

Our own practise shows that a number of important points have to be considered with the founding angel's business model

Own learning effects

- All founders, including the founding angel, should receive **the same equity share** - a discussion as to whether scientific expertise or commercial expertise is worth more leads inevitably to a failing of the project
- The founding angel like all other founders should **not receive any compensation** (e.g. salary) from the start-up company until the company reaches break-even
- The founding angel should be in a position to give cash injections, if necessary, which are to be seen as shareholder loans, so as **not to change the ownership structure**
- The founding angel usually takes on the role as **interim CEO**, but should hand over the position to a full-time CEO as soon as possible - the impression must not be formed that the founding angel is in search of a long-term position or is looking to keep his head above water financially through the start-up