Creativity & Innovation Management
创业与创新

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What is "Innovation"? 什么是创新？
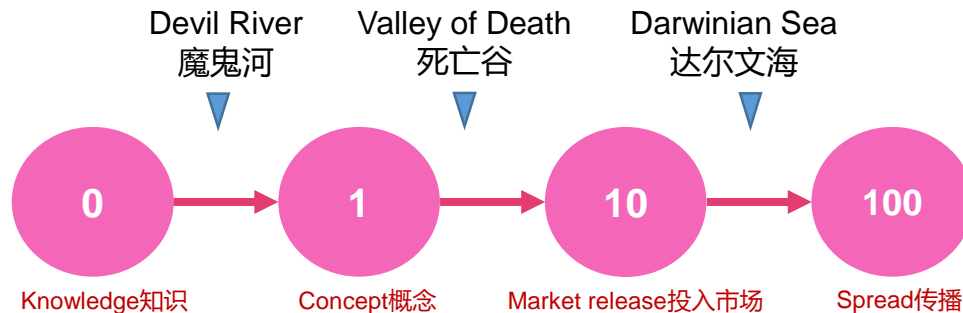
Business Model
商业模式

Differentiation
差异化

Customer needs
潜在需求

Strategic
Approach
战略成功

Happen to be
Successful
碰巧成功

Get higher success ratio
with Innovation Management!!
用创新管理获得更高的成功率！！

Innovation process 创新的过程

Devil River
魔鬼河

Valley of Death
死亡谷

Darwinian Sea
达尔文海

| 0 | 1 | 10 | 100 |

Knowledge知识   Concept概念   Market release投入市场   Spread传播

Value
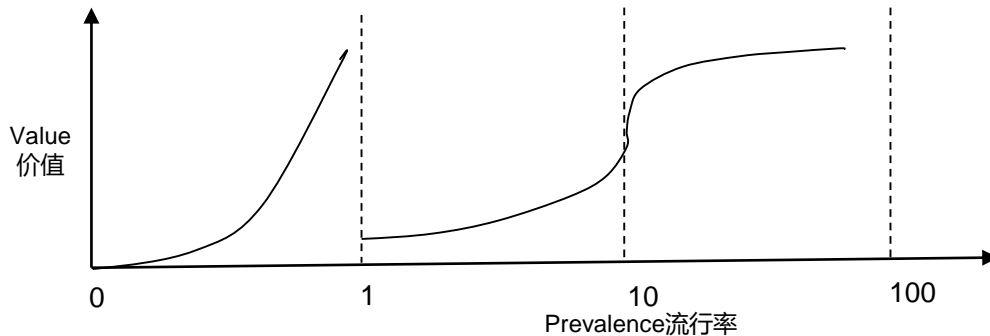价值

0   1   10   100

Prevalence流行率

Devil River魔鬼河
Barrier between R&D activity & technical realization
研发活动与技术实现之间的障碍

Valley of Death死亡谷
Barrier before technical solution could be commercialized and manufacturable
技术解决之前的障碍，可商业化可制造

Darwinian Sea达尔文海
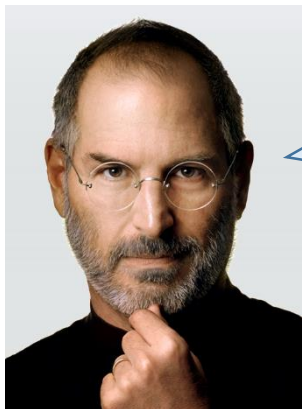Barrier to win severe competition and to be real winner in the field
赢得严峻竞争并成为该领域的真正的获胜者

By Tokyo Univ.   i.school

| Idea/Concept 想法/概念 | Commercialization 商业化 |

Innovation创新

If you don't have a super genius, 如果你没有一个超级天才，
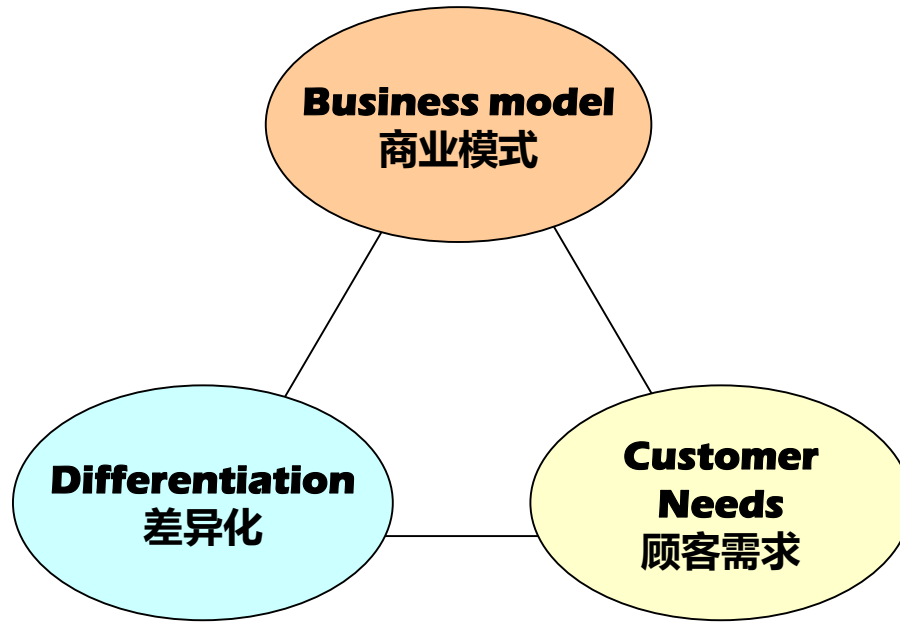then you should build up a good team for innovation.那么你需要培养一个有创新能力的团队。

- Strategy战略决策
- Business model商业模式
- Delivery交付

VS

Independent
High motivated
Team
独立、积极性高的团队

Key success factors成功的主要因素

Lessons learned 我们的教训

Lapsable mistakes 容易犯的错误

- Product out： Good technology, good product must lead to "success"
  产品：好的技术、好的产品一定会成功

- Too much rely on needs : Needs must be there, so it must be "successful"
  过分依赖顾客需求： 有需求在那儿，一定会成功

- Weak Business model : Money will come later
  薄弱的商业模式：钱很快就会有的

- No differentiator : Easy to catch up, going into price war
  没有差异化：容易被抄袭，打价格战

Example 1: Ultra short throw Projector
案例1：超短投影仪

Conventional Projector传统投影仪:

- needs space or additional table to put the projector in the center of the meeting room
  在会议室中间放投影仪需要空间或额外的桌子
- emits fan noise and hot air blows
  有风扇噪音和热风
- anything shouldn't be in between the screen and the projector
  屏幕和投影仪之间不能有任何东西遮挡

Challenges : easy to use
挑战：易于使用

In 2003, Ricoh was providing optical engines for the projector to various projector makers.
2003年，理光向不同的投影仪厂商提供投影仪的光学引擎。

Came up an idea提出一个想法

Putting mirrors before the lens and deflecting the light results in short distance.
在镜头前放置镜子并使光线偏转导致短距离。

Decision:
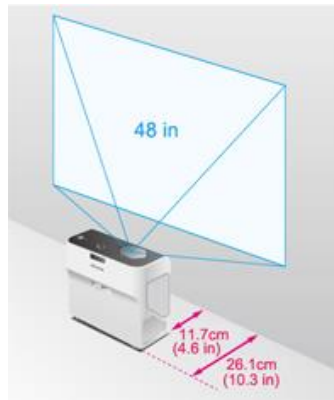Start R&D activity to develop short throw optical engine.
决定：开展研发项目开发短投光学引擎。

Short Movie (example 1)
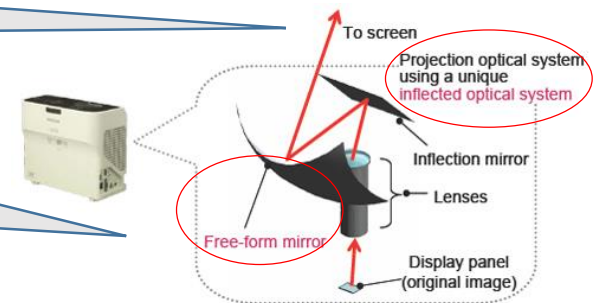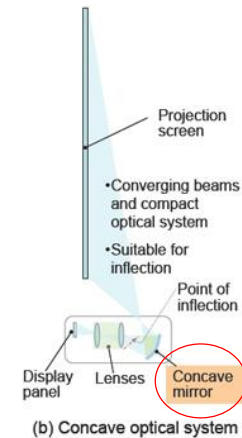案例1的小短片

Break through technology突破性技术

Three key technologies enabling ultra-close-range
Projection from a small, lightweight body
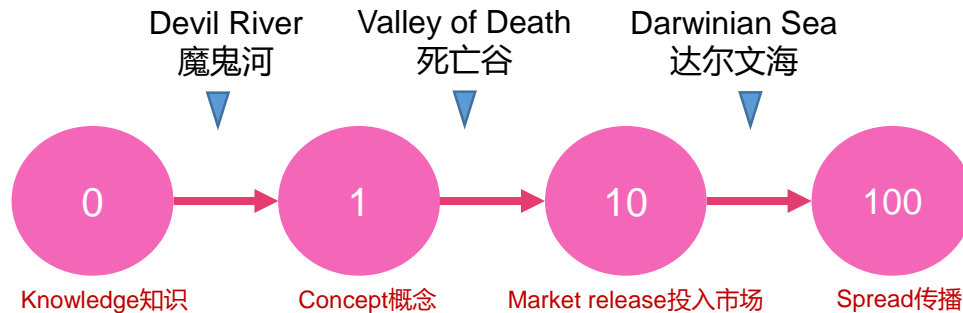从又小又轻的机身投射，实现超近距离的三项关键技术

concave mirror for ultra magnification
使用凹面镜实现超级放大

inflected optical system to reduce size
用弯曲的光学系统来减小尺寸

free-form concave mirror for further downsizing
自由式凹面镜，用于进一步的小型化

221mm (8.7 in)
Approx.3.0Kg (6.6 lb)
144mm (5.6 in)
257mm (10.1 in)

48 in
11.7cm (4.6 in)
26.1cm (10.3 in)

Projection screen
• Converging beams and compact optical system
• Suitable for inflection
Point of inflection
Display panel
Lenses
Concave mirror
(b) Concave optical system

To screen
Projection optical system using a unique inflected optical system
Inflection mirror
Lenses
Free-form mirror
Display panel (original image)

On the way to real "success"在实现真正 "成功" 的道路上

Devil River
魔鬼河

Valley of Death
死亡谷

Darwinian Sea
达尔文海

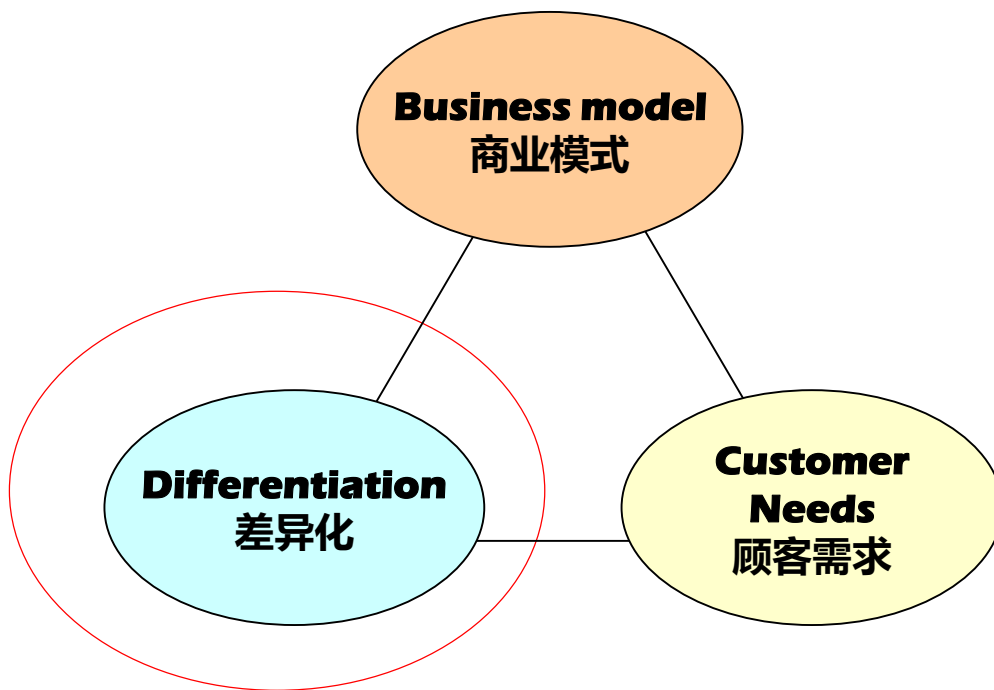Knowledge知识 **0** → Concept概念 **1** → Market release投入市场 **10** → Spread传播 **100**

Optical knowledge
光学知识
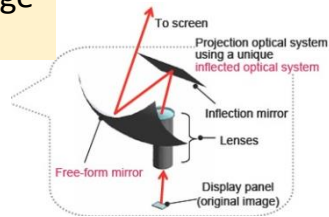
- WiFi Connection无线连接
- Interactive board交互界面
  etc.

Technology Differentiation 技术差异化

Example 2: TOE (TCP/IP Off load Engine)
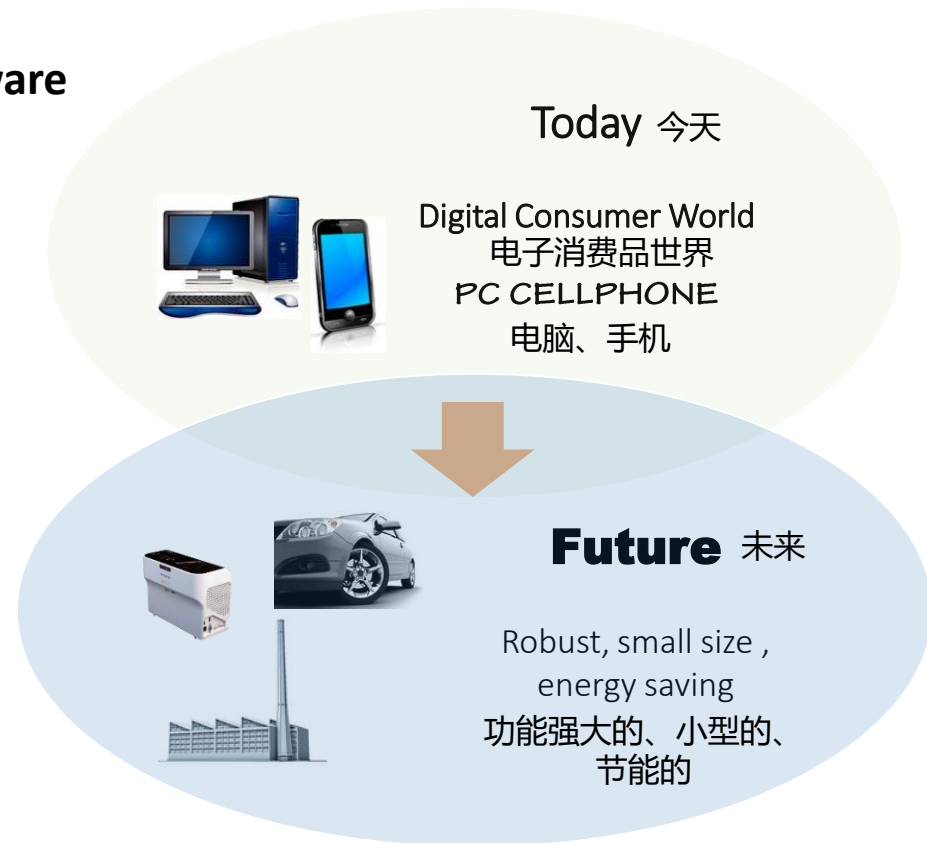# 案例2：TOE（TCP／IP卸载引擎）

TCP/IP protocol stack on the hardware
硬件上的TCP／IP协议堆栈

Pros优点

- 10x faster 10倍的速度
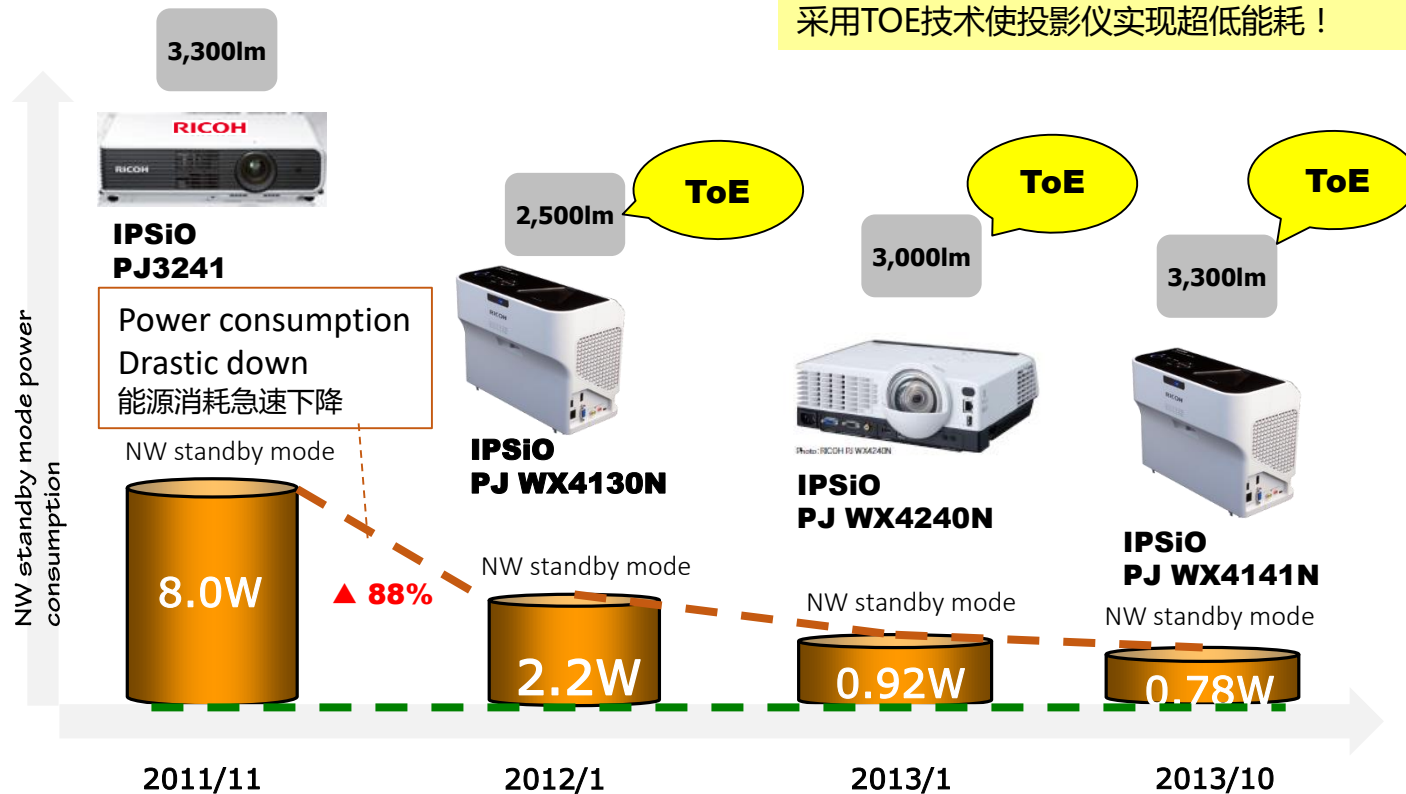- 1/10 energy saving 节约1/10能源
- Resist Cyberattack 抵制计算机攻击

Cons缺点
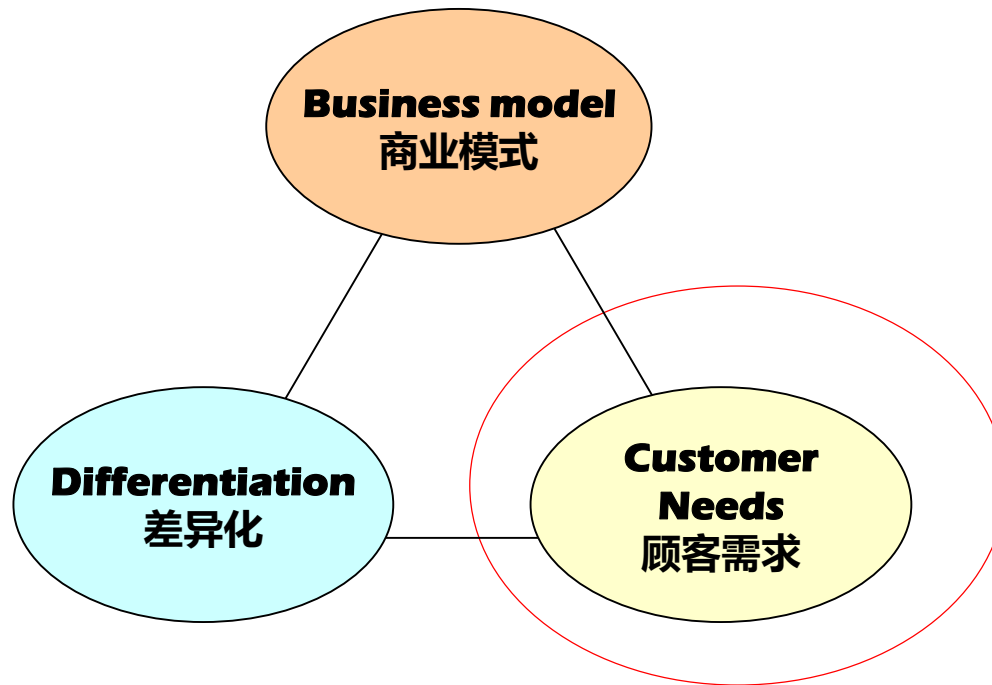
- Low flexibility 灵活性低
- Limited multi session 多会话限制

Today 今天

Digital Consumer World
电子消费品世界
PC CELLPHONE
电脑、手机

Future 未来

Robust, small size ,
energy saving
功能强大的、小型的、
节能的

Challenges : energy saving 挑战：节约能源

■ Adopted TOE technology in our Ultra Short Throw Projector and realized ultra low power!
采用TOE技术使投影仪实现超低能耗！

3,300lm

IPSiO PJ3241

Power consumption
Drastic down
能源消耗急速下降

2,500lm | ToE

IPSiO PJ WX4130N

3,000lm | ToE

IPSiO PJ WX4240N

3,300lm | ToE

IPSiO PJ WX4141N

NW standby mode power consumption

NW standby mode

8.0W

▲ 88%

NW standby mode

2.2W

NW standby mode

0.92W

NW standby mode

0.78W

2011/11 | 2012/1 | 2013/1 | 2013/10

Customer needs 顾客需求
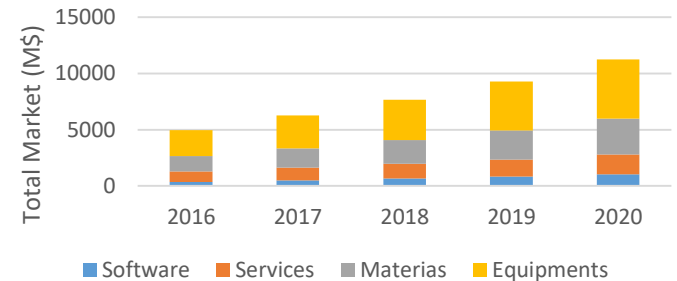
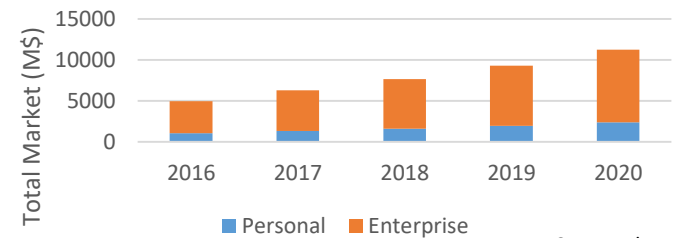# Example 3: 3D Printer 案例3：3D打印机

Desktop
台式机

Pro use
商用

Forecast for 3D Printer market
3D打印机市场预测

3D Printer market Personal vs Enterprise
个人用户和企业用户市场

By Smartech Markets

Target "low end market" 目标 "低端市场"

being interested in using 3D printer but no real experience
对3D打印机有使用兴趣，但没有使用经验

3D Printer Equipment 3D打印设备	Buy? or rental? or going to "Fab space"? 买？租赁？还是去 "Fab space" ？
What to make (3D Data) 做什么（3D数据）	Design by myself? or buy? or get free data from web site? 自己设计？购买？还是从网上获取免费数据？
How to use (learning) 怎么使用（学习）	Learn by myself? or take a class? or just ask print services? 自学？培训？还是求教服务商？

By Smartech Markets

A thinking process 思考过程

Jobs to be done作业

Want to make something 想做点什么

Buy or get 3D printer 购买3D打印机

Master how to use 掌握如何使用 →

Make 3D data 制作3D数据 →

Print out 打印输出 →

Continue to use 继续使用 →

Skill up 技能升级

Upgrade equipment 设备升级

Solutions for jobs解决方案

Not much solution没太多解决方案

Beginners school 初学者培训 → **Bottle neck for business expansion**
业务扩张的瓶颈

3D CAD software 3D制图软件

Printer equipment 打印设备 ←→ Print services 打印服务

Potential competition
潜在竞争

Maintenance 设备维护 ←→ Materials/Supply 材料/供应

Potential collaboration
潜在合作

Business Model Design 商业模式设计

Your Business

Competitor竞争者

| Solution a | ⟷ | Solution b |

| Solution c |

Competitor竞争者

| Solution d | ⟷ | Solution e |

| Solution f |

Collaborator合作伙伴

Your Business

| Solution g |

Solution X → New business chance 新业务机会
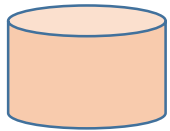
| Solution h |

Collaborator合作伙伴

- ➢ Competition 竞争者
- ➢ Collaboration 合作伙伴
- ➢ Blue ocean strategy 蓝海战略

How will you earn big money??
如何赚大钱？？

Analogy thinking case study 类比思维案例学习

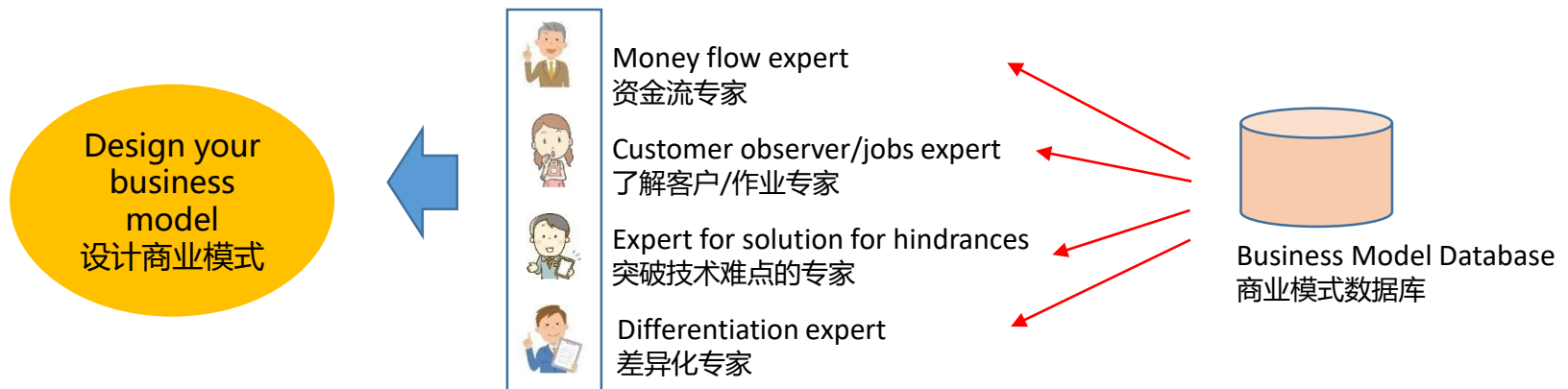Business Model Data Base商业模式数据库

Knowledge→Generalize→Reuse
知识→总结→重复使用

Analogy thinking
类比思维

	Money Flow 资金流	Jobs / Solutions 作业/解决方案	Hindrances for solutions 技术难点	Barriers for entry 进入市场的障碍
Airbnb				
Uber				
Shaver (Printer)				
Evernote				
South West Air				
Rental Video				
Dell Direct Model				

analogy thinking: Apply other business models
类比思维：运用其他商业模式

Design your business model
设计商业模式

Money flow expert
资金流专家

Customer observer/jobs expert
了解客户/作业专家

Expert for solution for hindrances
突破技术难点的专家

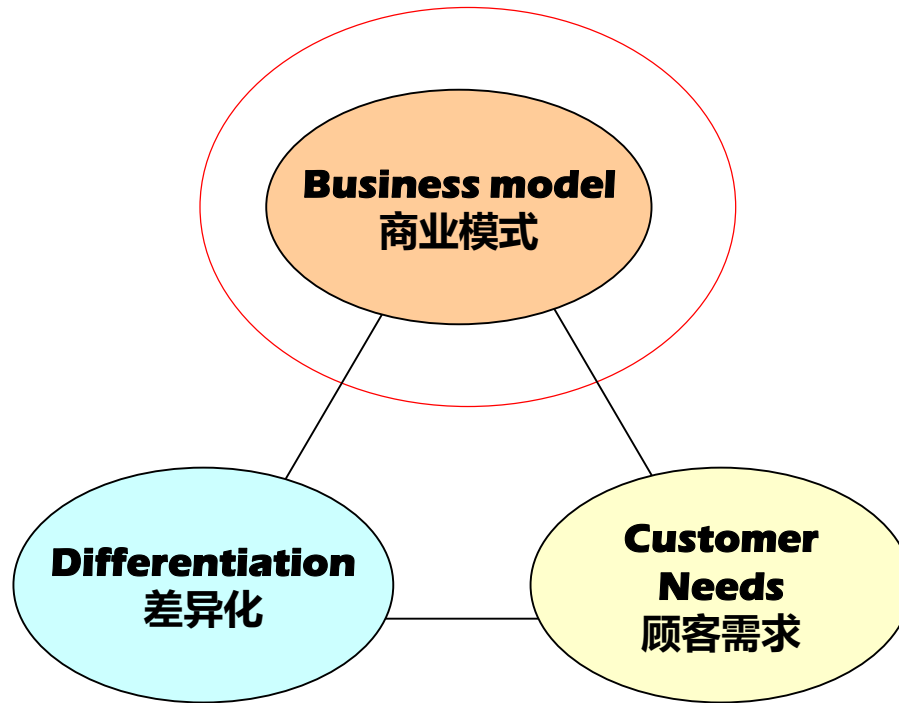Differentiation expert
差异化专家

Business Model Database
商业模式数据库

Challenges : Business expansion 挑战：业务扩张

- Deagostini方法
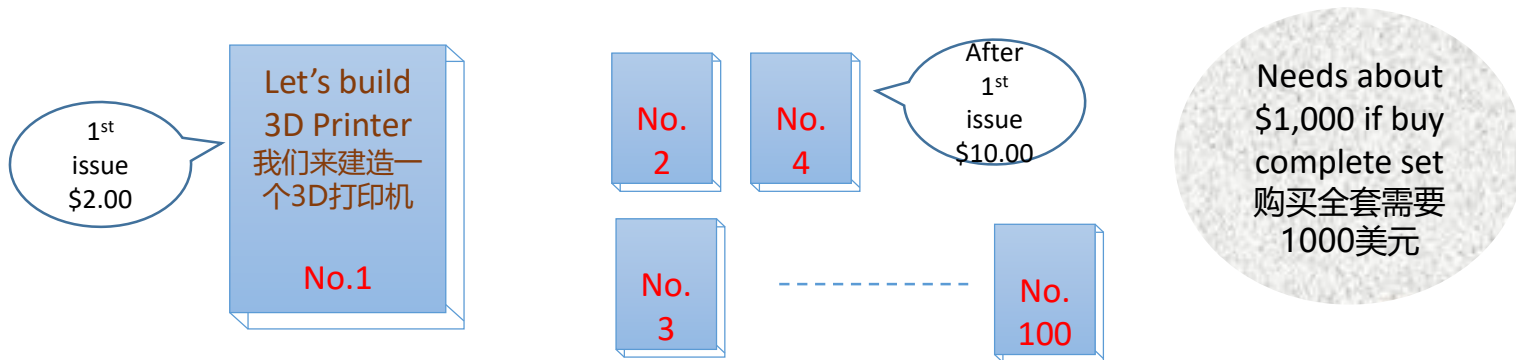
Business design商业设计
reusing past success case重复利用过去的成功案例

Business model 商业模式

Conclusions 总结

- Keep an eye on all the innovation process, not only 0 to 1 phase but through 100. Then put innovation challenges strategically on Devil river, Valley of death and Darwinian sea.
  关注整个创新过程，不仅仅是0到1，还要穿过100。然后战略性地在魔鬼河、死亡谷和达尔文海运用创新挑战。

- Keep 3 key factors, "Business model", "Latent needs" and "Differentiation", well balanced during the process.
  记住3个要素：商业模式、潜在需求和差异化，在整个创新过程中很好地平衡这三点。

- "Jobs to be done" could be a good tool to find customer's latent needs and to make business architecture design for your business.
  "Jobs to be done" 是为你发现顾客潜在需求和设计业务架构的一个好工具。

- Business model should be reused and diverted from other business area having good people (team).
  商业模式应该可以被重复使用，并可以从其他业务领域（拥有好的团队）转移过来。

- Success ratio should drastically increase by innovation process and innovative people.
  通过创新过程和创新人才，成功率将大幅提升。

Contact information 联系方式

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Thank you for your attention!!
谢谢