

 **springfree**[™]
TRAMPOLINE



Trampoline Story

From Kiwi Shed to US Product of the Year

1. How did it start?
2. Where is it up to now?
3. Incentives and Challenges outlined.

How did it start?

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- 1989

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– “A Decade of Injuries”**

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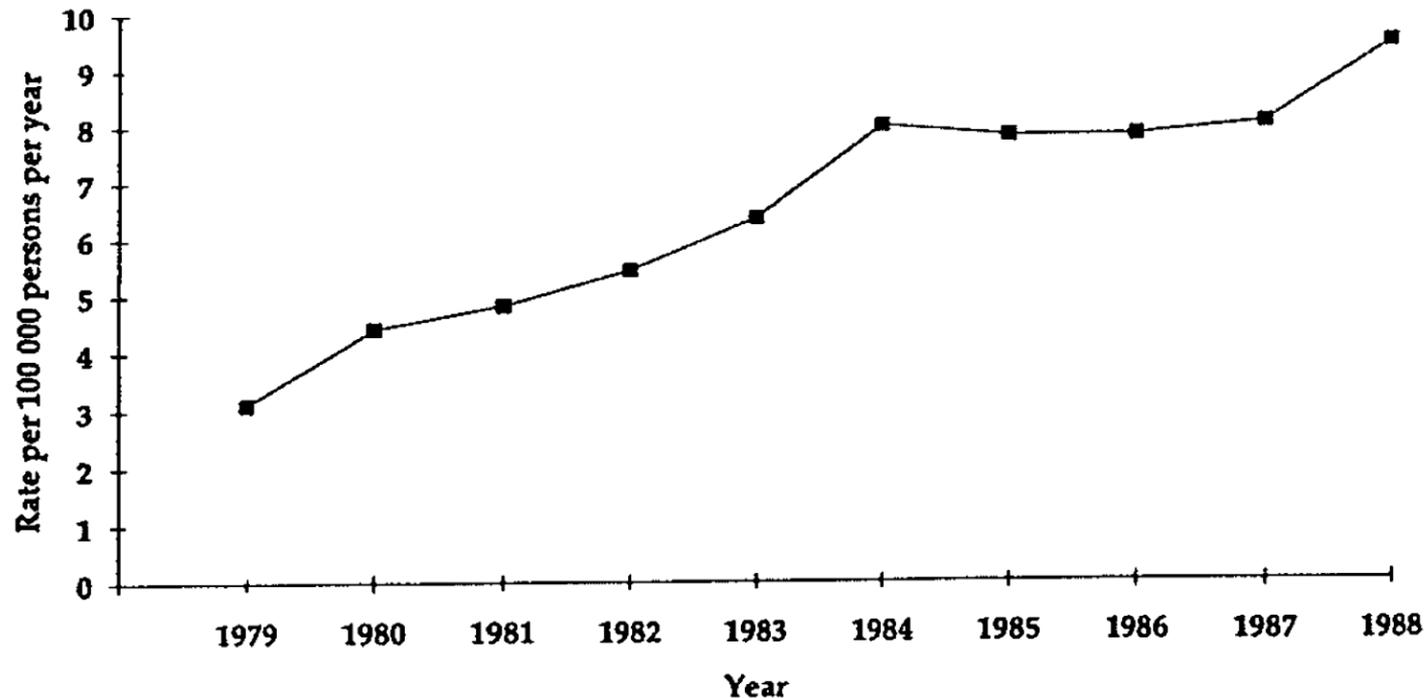


Figure 1. Annual incidence rates for hospitalizations, 1979–1988



How did it start?



- Personal Goal:

**Make a safer trampoline
– with soft edges**

1993



1995



Some good features but....

- Too expensive for young families
- Always leaked
- **Not very bouncy**

1997 Pultruded Fibreglass?



- Fishing rods are made of it
- As strong as steel but lighter
- Available in NZ
- Could I use this?

Made by
Pultron in
Gisborne



Many available sections



Pultruded fibreglass rods

1997: Kiwi shed + Kebab Sticks + My Sewing...



It works...

2001: Customer trials with Canvasland, Levin



2001 Tech Transfer Office (TTO) Review:

“Not Market-Ready. \$75,000 to get there”



And then...

- The TTO hired a person with product-to-market experience
- He found a Canadian investor:
- The investor discovered:
“700,000 trampolines are sold per year in USA so ...”
- Deal signed shortly after

2003: Golden Sample No 1

To new owner's specification



2003: First Net

To new owner's specification



Unexpected capabilities ...

A new play feature!



2004 (my sabbatical year)

“Please help with production & documentation”

- 5 trips to Asia for production start-up
- Patents for improvements ... 14 of them

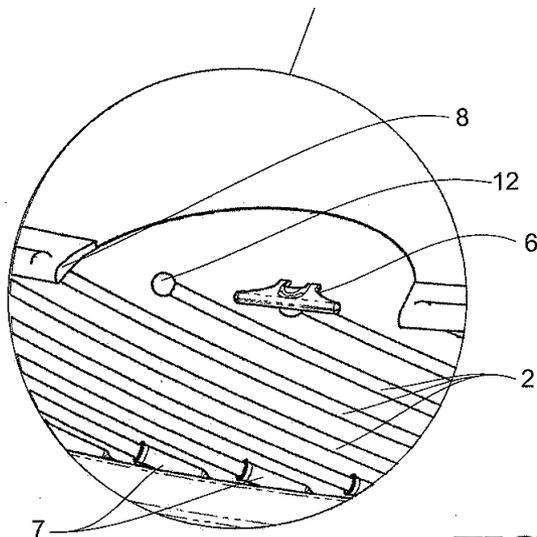


FIGURE 3a

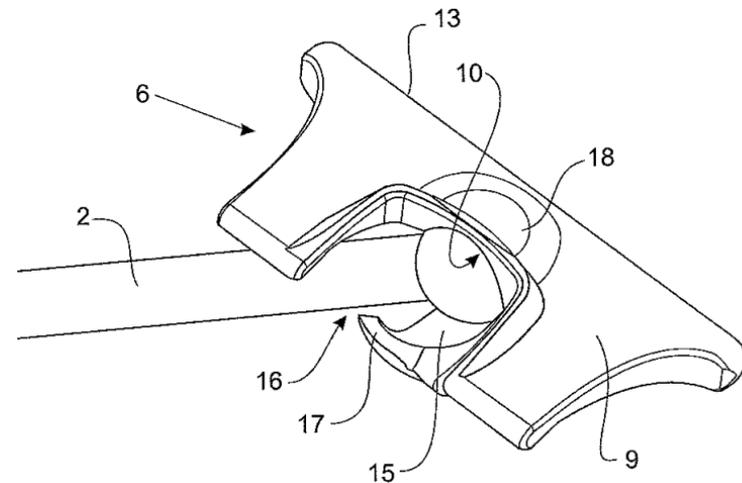


FIGURE 4A

2005 Feb

Trademarked “SpringFree”, Costco, Quebec



Memorable milestone

2005 Work on Standards

“We don’t comply with this – what do we do?”



4. Included Components

4.1 When a trampoline is offered for sale, it shall include the following: (1) a frame, (2) a bed, (3) a suspension system, (4) frame padding, (5) an information packet, and (6) suitable markings.

US Product of the Year 2010



2010

Campbell Live likened it to:

- Refrigerated shipping
- Hamilton jet boat



Bluebird Potato Chips included it in their 'Kiwi As...' campaign

'Kiwi as the SpringFree Trampoline'

Where are things up to now?



**TAKE GAMING
OUTSIDE &
MAKE IT ACTIVE!**

Recent
Release

Now
Web connected

Where are things up to now?

- **Currently selling into 25 countries**
- **~15% annual growth since 2005**
- **Springfree NZ set up in 2008**
- **Hi-tech elements from NZ:**
 - 35 containers from Gisborne...
 - 3 million hi-tech fibreglass rods; 700 tonnes per year
 - 6 containers from Christchurch...
 - 3 million plastic cleats; 130 tonnes per year

New Zealand,
USA, Canada,
China, Russia,
Australia,
Thailand,
Czech
Republic,
Dubai,
Singapore,
UK, Spain,
Germany,
Italy, France,
South Korea,
Chile, Brunei,
Poland,
Slovenia,
Slovakia,
Denmark,
Sweden,
Norway, and
Belgium

SpringFree NZ



- Premises in Christchurch
- Owns and manages two factories in Asia
- Does all design and prototyping in NZ.
- Invests in innovation:
 - Two recent product releases, and others in preparation
- Offers Asian manufacturing capability to others
- Has run ~8 honours research projects, taken ~15 interns and currently has 1 PhD research project

Conclusion for the Trampoline Story



- The technology transfer has worked ...
- Relationships continue after 15 years
- Benefits accrue to NZ companies, students, customers and the University
- This project has become a recognised example of commercialisation from NZ

Review of
Incentives and Challenges
for
Academics to Commercialise

Then and Now

4 Slides

Incentives in 1998

1. Personal goal, based on a belief that University and Industry should work together.
2. No chance of promotion so returns from commercialisation had some attraction.
3. There was the potential to generate a secondary income
4. The newly appointed TTO was charged with spinning out several companies a year.
5. I expected commercialisation would be quite quick (18 months?).
6. The TTO team said they knew how to do it.
7. The share of benefits model of 1/3, 1/3, 1/3 seemed reasonable.
8. The TTO committed to pay for provisional patents.
9. The TTO (eventually) took on someone who had commercialised product before.
10. This new person made tangible progress and succeeded in facilitating a successful market launch.
11. I had up to 20% of my time to “work with industry” & this included commercialisation.
12. I could earn consultancy money that I was able to use for development.
13. We could run student research projects free of charge, to support commercialisation.
14. I was able to apply for Summer Scholarship funding for students to build early prototypes.
15. There was government funding once we had a relationship with a suitable industry partner.

Challenges in 1998

1. Commercialisation by academics was considered prostitution.
2. The University retroactively claimed ownership of my IP, in its new policy.
3. The TTO was in startup mode itself. The team actually had only a limited idea of what to do. No one on the team had commercialised a product before.
4. The TTO had little time for a child's toy such as a trampoline, so most of the commercial contacts were left to me to set up.
5. I trusted the TTO and was more often let down than supported.
6. The TTO (initially) declined to pay for full US patent once the provisional lapsed
7. I would have lost the IP if I had not paid for it myself.
8. I did not have a clear idea of what was involved in commercialisation (no roadmaps available), so I developed my own (and built a postgrad course around it).
9. NZ investors were virtually non-existent and unrealistic in their demands.
10. After the deal the TTO agreement with the new owner was: "All improvements by the academic mean the deal must be renegotiated."
11. It only gradually became clear that commercialisation was a long haul – much more time consuming than publishing a paper or 2 or 5 or 7... (5 to 8 years)

Incentives Now

1. There are a number of clear commercialisation roadmaps (many recent books).
2. Development processes and milestones are better defined and understood.
3. Tech Transfer Offices are much better informed than in the past.
4. There are organised investor groups working with Universities (Powerhouse, Icehouse).
5. Investment \$ are realistic, once projects are accepted by investor groups.
6. There is in-University funding such as provided by Kiwi-Net.
7. There is a culture of innovation promoted within the Universities.
8. The government expects Universities to work with industry & facilitate innovation
9. There is Callaghan funding for commercialisation projects.
10. Some Universities now allow academics ownership of their IP.
11. There are still opportunities to use student research to contribute to commercialisation.
12. I still have up to 20% of my time to “work with industry”, earn consultancy money and use that for new developments.
13. It is a privilege to generate value for customers and wealth for a company & myself
14. The opportunity to work on International Standards Committees has resulted in a much greater impact on trampoline safety than the product alone could achieve.

Challenges Now

1. Commercialisation typically takes a long time.
2. Commercialisation for academics is always high-risk compared to publishing research: while you can always publish a paper on a “failed” experiment, a failed spinout takes years, is unfamiliar, expensive, and has little to show for it.
3. It is unclear how PBRF, and the academic promotion process will recognise patents, commercialisations and academic internships & relationships within companies.
4. Some Universities still claim ownership of staff IP, which is significantly demotivating to would-be, academic inventors.
5. There is still a limited understanding of the idea that relationships with industry are personal relationships, and they need to evolve over a timescale of decades to generate the best mutual benefits.
6. It is still not clear to academics that the TTO’s job is about building and nurturing these relationships, not about making money from spinouts.
7. It is still not clear that the benefits are: University-TTO-Company success stories of products in the market, industry-funded research projects, industry internships for students as well as staff, University lectures by industry players, and others
8. Cultural differences between academia and business are still not well-managed and negotiated.
9. IP protection remains a mysterious and expensive lottery for most academics.

End