

Welcome to the Conference

HEALTH CONNECT 2013

7 – 8 May 2013 | Stuttgart, Hotel Maritim

Tech-Transfer Supporting Healthy Lifestyles

Overview

- Stimulating Entrepreneurship (@Ghent University)
- Some Trends....
- Case: RunKeeper from FitnessKeeper
- Determining Value & Assess Possible Royalties

Focus on Healthy Lifestyles , more in particular on Software & APPs

Stimulating Entrepreneurship

- Students at Ghent University can get a specific status as entrepreneurs (*in spe*) similar to top athletes.
- Valorization Policy: 50% of the net **licensing revenues** to UGent goes to the research group, 20% to UGent central admin and **30% to the inventors** (personnel account).
- Students (non economic) can follow business related courses:
 - Introduction to Corporate Management
 - Intellectual Property and It's Valorization.
- When preparing business case/plan often the subject is APP related.

Some Trends....

- Communities (LinkedIn, Facebook, Netlog,...)
- Multidisciplinary based innovations
e.g. weight loss/nutrition combined with physical activity.
- From virtual world & gaming to reality
- WWW on the move + tracking.
- Apps, smartphones, tablets....
- DNA analyses cheaper / more markers
- Reality TV from Big Brother, Survivor, Temptation Island towards life style: Extreme Makeover, Master Chef and Celebrity Fit Club, The Biggest Loser and Let's Get Fit (including healthy cooking).



FitnessKeeper Inc.

Address: 60 Canal Street 2nd Floor Boston, MA
02114 United States

Founded: 2008 by Jason Jacobs, CEO

Industry: computer software/fitness technology

Type: privately held

Size: 11-50 employees

Website: www.runkeeper.com

Blog: blog.runkeeper.com

Status: global, over 200 countries
7 different languages
>17 million users
>100 integration partners
iPhone, Android, Tablet & PC

(March 2013)



CASE

FitnessKeeper Inc.

- 2008: company established (no family, friends & fools)
- 2009: -800,000 downloads, including both its free, ad-supported version, and an ad-free version available for a one-time fee of \$10
-\$400,000 in a seed-stage investment from Cambridge-based venture investor LaunchCapital
- 2010: \$1.1 mio from a new investor O'Reilly AlphaTech Ventures (OATV)
- 2011: -starting to build an entire “Health Graph” so that all sorts of health data can plug into its service.
-\$10 million in a Series B financing, led by Spark Capital
- 2012: RunKeeper is gunning to become the [Facebook of Fitness](#) by tying together data from all sorts of fitness apps and services.
- 2013: Over 17 mio users WW. Assuming 25% use the Pay Version (RunKeeper Elite), the income is **probably > \$340 mio/year!**

CASE

FitnessKeeper Inc.

- RunKeeper is the name of the actual fitness software/product.
- The first version of the application was built by Raizlabs Inc., an iPhone development shop based in Brookline.
- It packs the benefits of a personal trainer into the convenience of a smartphone.
- The first app was launched in the iPhone App Store in 2008.
- A passionate community has since emerged of millions of RunKeeper users around the world, using our iPhone app, Android app, and website.
- RunKeeper with a variety of adjacent health apps and devices, as well as services such as corporate wellness programs, fitness games and more.
- RunKeeper aims to help people to work towards achieving their **health and fitness** goals more effectively.
- Named by Time Magazine in 2009 as one of the top 10 iPhone download applications.

CASE


RunKeeper


- Available via Google Play Store and App Store.
- GPS Tracking
- Upgrade to RunKeeper Elite for \$4.99/month or \$19.99/year
- Belonging to a “health community”

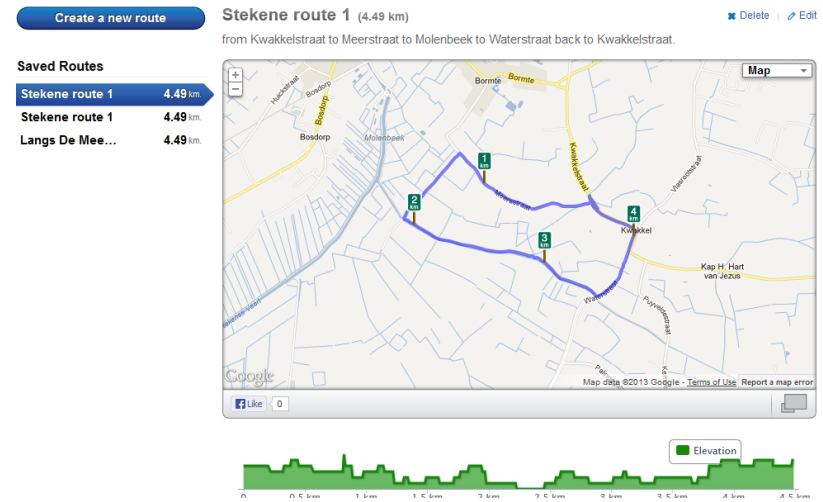


Tell Your Friends!

Give your friends and loved ones some extra motivation to get out and log their miles or kilometers!

 Tell your friends on **facebook**

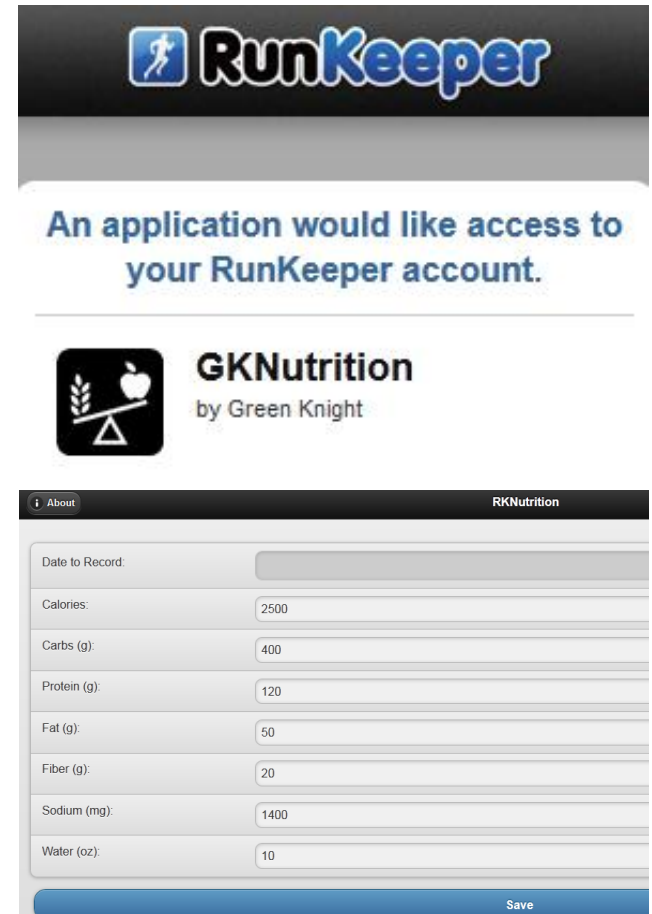
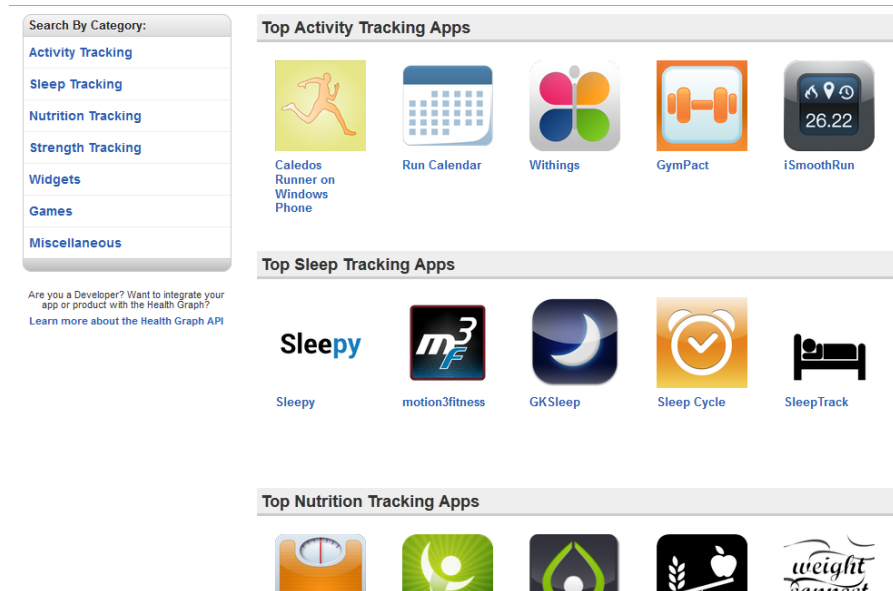
 Tell your followers on **twitter**



CASE

RunKeeper

- Health related apps can be integrated.
- Weight control, nutrition, sleep,.....



Intellectual Property for APPs

- Software is protected under copyright (70 years after creator's death)
- Human build databases (15 years)
- Registered trademark (10 years or longer)
- Designs (& logo's) (5x5 years)
- This allows for additional commercial activities: merchandising, franchising, licensing.....

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RUNKEEPER

Word Mark
Goods and Services
IC 009. US 021 023 026 036 038. G & S: Downloadable software for the collection, storage and display of performance data from various fitness activities; downloadable software for tracking, monitoring and planning fitness training activities. FIRST USE: 20080812. FIRST USE IN COMMERCE: 20080812

IC 042. US 100 101. G & S: Hosting an online website featuring tools for viewing, tracking, storing, managing, and sharing fitness activity data. FIRST USE: 20080812. FIRST USE IN COMMERCE: 20080812

Standard Characters Claimed
Mark Drawing Code
Serial Number

(4) STANDARD CHARACTER MARK
77774349

 Fitbit Zip Wireless Activity Tracker \$59.95	 Renew SleepClock \$99	 MIO Alpha BLE \$199	 Wahoo Fitness Run Pack \$99.99
 RunKeeper Unisex Cotton Tee \$22	 RunKeeper Hoodie \$42	 RunKeeper Ladies Performance Tee \$24	 RunKeeper Men's Performance Tee \$24
 Polar Wearlink+ Transmitter with Bluetooth \$79.95	 Griffin iPhone AeroSport Workout Armband \$29.95	 FINIS SwimSense Performance Monitor \$199.99	 RunKeeper Sticker - 3 Pack \$5

Industrial Standards

- Most likely, historical data exists on previous done deals in a specific industrial sector for a specific type of technology or product
 - Established general terms & conditions (industry norms)
 - Business development literature
 - Business development communities
 - Databases (often pay)
 - Published agreements
 - Court cases

Established Industry Norms

- Easy approach requiring less effort
- Key is to have recent studies since the established norms can evolve over time
- Journals where information can be found:
 - Les Nouvelles
 - Licensing Economics Review
 - Journal of the Association of University Technology Managers
 - Review of Financial Economics
 - International Review of Economics and Finance

Established Industry Norms

Royalty rates dd. 2002 for different industries according to Muelhern *et al.*

INDUSTRY	Av. Oper. Margin	n (# of entries)	min. Royalty rate	Max. Royalty Rate	Median Royalty Rate
Automotive	5.0%	35	1.0%	15.0%	4.0%
Chemicals	11.1%	72	0.5%	25.0%	3.6%
Computers	6.9%	68	0.2%	15.0%	4.0%
Food	7.3%	32	0.3%	7.0%	2.8%
Pharma & Biotech	16.4%	328	0.1%	40.0%	5.1%
Software	18.8%	119	0.0%	70.0%	6.8%

Muelhern, C.; Jaroz, J.; Goldschneider, R., *Les Nouvelles*, **2002**, 123.

Historical Data on Deals

- More reliable for deal making can be the study of available historical data on relevant past deals
- The data needs to be for a similar product or technology for a similar industrial sector
- This can be purchased from:
 - RoyaltyStat
 - Recap
 - Pharmadeals
 - Datamonitor
 - Life Science Analytics (www.medtrack.com)
- This is often expensive
- Also: your own (company/institute/person) experience & data – much cheaper

Historical Data on Deals

Ghent University developed new technology related to food safety modeling software and closed an agreement with an industrial partner for commercialization.

Food Quality Software	Deal Terms	
Stage	Fully developed	
IP	Software (©), Databases, Trademark,	
Territory	worldwide	
Type	Exclusive, for all IP and its commercialization	
Stage payments	If sales reach €1 mio	€50000
	If sales reach €5 mio	€200000
Duration	10 years, afterwards all rights will go to licensee	
Royalties	7% on Net Sales	

The “25 Percent Rule”

- What if no closely related industrial standards or historical deals can be found?
- A possible solution can be applying a general accepted rule of thumb
- Goldschneider *et al.* defines the over 40 years old rule as *“dividing the expected profits for the product or technology that incorporates the IP at issue in such a way that 25% is retained by the licensor (the seller) and that 75% goes to the licensee (the buyer)”*

The “25 Percent Rule”

- New IP is assumed to be generating new sales in a specific business sector
- It is possible to identify companies that are active in that specific sector
- In financial statements of the company we can find:

TURNOVER/SALES/REVENUES

- **COGS**

= GROSS MARGIN

- Sales and marketing expenses
- Research and development
- General overhead and administration
- Other expenses

= EARNINGS/OPERATIONAL PROFIT BEFORE INTEREST AND TAXES (EBIT)

- Interest
- Taxes

= EARNINGS/OPERATIONAL PROFIT AFTER INTEREST AND TAXES

The “25 Percent Rule”

- For the 25 percent rule, we need the EBIT value
- EBIT can be expressed as a % of the original revenues
- The 25 percent rule states that a licensor could ask for 25% of this EBIT

The “25 Percent Rule”

Example: Software & App

- The company Activision is an important industrial player
- Activision is a public company and financial data is easily available, *e.g.* the annual report 2011.

(in US\$ Mio)	Value	% of Revenues
Net Revenues	4755	
COGS	1755	36,9
R&D	646	13,6
Sales & Marketing	545	11,5
Gen & Admin	456	9,6
Net Income (EBIT)	1353	28,5
ROYALTY ON NET SALES	7.11%	“25% RULE”

!Remark: financial data can vary significantly over time and also between companies in the same sector *e.g.* software company Take-Two Interactive Software Inc. had an EBIT of 0.01% of total revenues (in 2011).

The “25 Percent Rule”

- What about new IP on processes for the production of known products?
- The 25 percent rule will not be applied on the revenues generated on the commercialized product
- It will be applied on gain resulting from the proprietary improved production process over the old production process
- Some other helpful rules of thumb:
 - Non-exclusive licenses are half or less compared to deal terms for exclusive licenses
 - Upfront/stage payments can be 5 to 10% of the total retained intrinsic value
 - Split profit for fully developed products
 - Upfront payment should minimum cover all IP related costs

The “FRAND Licensing Terms”

- There was a lot of debate regarding the 25% rule, especially since the Uniloc ruling in which the use of the 25% rule was barred.
(Uniloc vs Microsoft, CAFC, Jan 4, **2011**)
- Alternative approaches are being developed and proposed.
- Fair, Reasonable And Non-Discriminatory (FRAND) licensing terms are based on equalizing the rates of return on investments made by the parties involved.
(Granstrand *et al.* Les Nouvelles, 188-195, **2012**)
- Return On Investment (ROI):
$$= C_{\text{returns}} / I_{\text{investment}}$$
$$= (\text{gains minus investments}) / \text{investments}$$

The “FRAND Licensing Terms”

- For bilateral agreements (1 licensor and 1 licensee), the royalties can be defined as:

$$L = \frac{I_S}{I_B + I_S} \cdot \pi_{opb}$$

With L = royalty paid by Licensee (buyer).
 I_S = investments made by the licensor (seller).
 I_B = investments made by the licensee (buyer).
 π_{opb} = operating profit of the licensee (buyer).

- The formula can be expanded towards multiple licensees and multiple licensors.

The “FRAND Licensing Terms”

EXAMPLE

- A research company invested €0,3 mio for the development of a new model/software.
- The company licensed the commercialization to Activision (with an of EBIT 28,5% of the turn-over) who invested €0,7 mio for further development.
- According to FRAND the royalties on Net Sales could be:
$$L = (\text{€}0,2 \text{ mio} / (\text{€}0,2 \text{ mio} + \text{€}0,7 \text{ mio})) \times 28,5\%$$
$$= 6,33\% \text{ on Net Sales}$$

(versus 7.10% when the 25% rule is followed)

The “FRAND Licensing Terms”

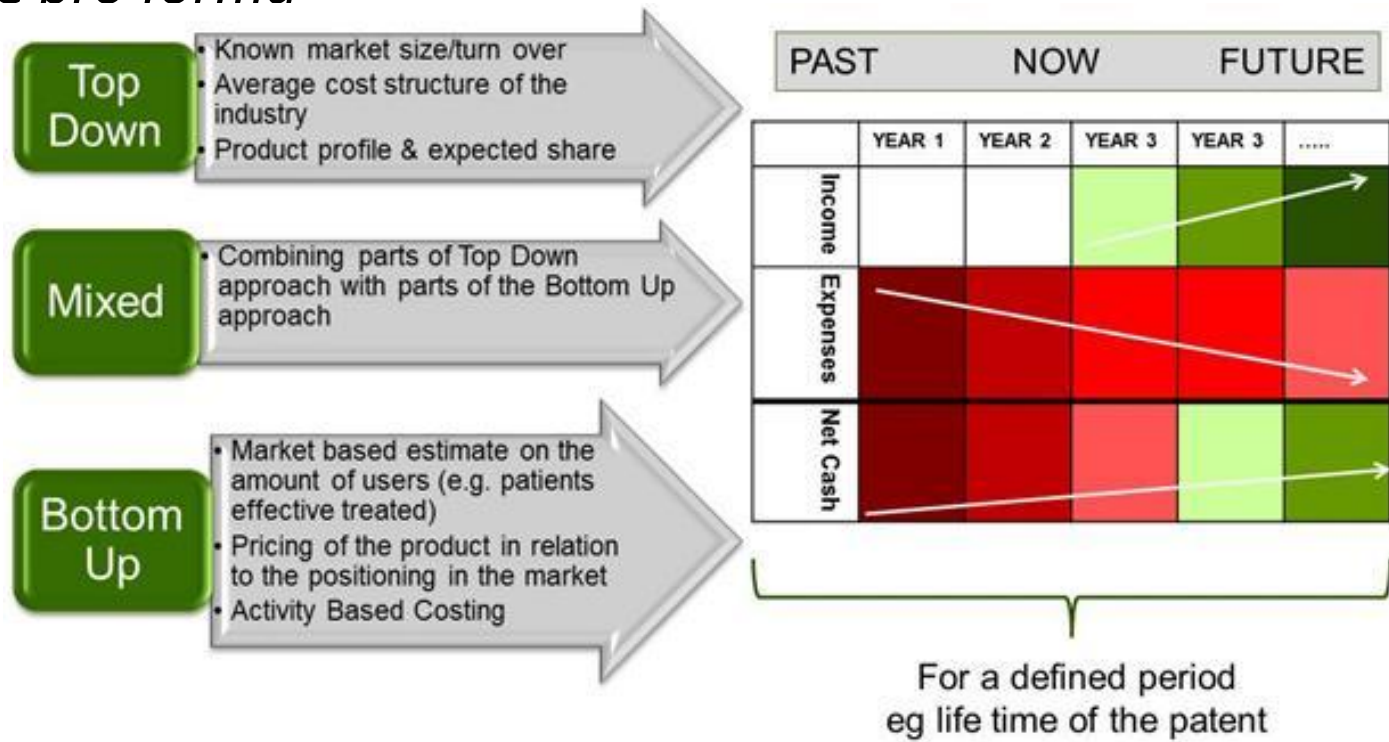
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The Cash Flow Projections

- Determine the cash flows for the different years that are part of the NPV calculation
- All numbers that are given are estimations and the cash flows are *pro forma*



DCF Techniques

Net Present Value

$$\sum_{t=0}^n \frac{C_t}{(1+d)^t}$$

C_t = Cash flow @ year t for a total of n years

d = discount rate

The rate that a value is decreasing in time due to inflation, risk, ...

- Should we do an investment of X now if we can expect cash flows Y in the future?

NPV < 0

bad investment

NPV = 0

profit equals the expected minimum

NPV > 0

profit is better than the expected minimum

DCF Techniques

Internal Rate of Return

$$\sum_{t=0}^n \frac{C_t}{(1+d)^t} = 0$$

For a given NPV, determine d so that the NPV = 0

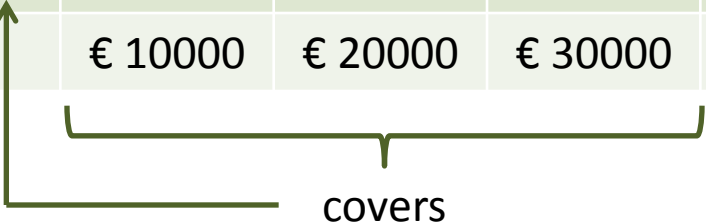
- The IRR value is compared to a pre-set minimum i.e. the cut of rate of a minimum return/yield
- If the IRR is higher the project can be accepted
- If the IRR is lower the project is rejected

DCF Techniques

Pay Back Period (PP)

- PP is the time needed for the cash inflows to cover the (initial) investment.
- PP is one of the most popular alternatives to NPV.
- Example:

Time (year)	0	1	2	3	4
Cash out	€ 60000	€ 0	€ 0	€ 0	€ 0
Cash in	0	€ 10000	€ 20000	€ 30000	€ 40000



→ Pay Back Period (PP) = 3 years

- The Pay Back Period Rule (PPR) is single: a particular cut-off period needs to be selected e.g. 3 years.
- Discounted Pay Back Period (DPP): first discount the cash flows before looking at the Pay Back Period.

DCF Techniques

Risk Adjusted Discount Rate NPV = NPV_{RADR}

- Instead of using a discount rate that is based on e.g. WACC, a risk adjusted rate is used

$$\text{RADR (NPV)} = \sum_{t=0}^n \frac{C_t}{(1+r)^t}$$

$r = R_F + R_B + R_P$ and $R_F + R_B = d$ e.g. WACC

R_F = risk free rate

R_B = adjustment for the normal business risk

R_P = adjustment for the risk of a specific project (positive or negative)

Certainty Equivalent Method (CE)

Is a method in which risky future cash flows are connected to certainty equivalent cash flows.

$$\text{NPV}_{\text{CE}} = \sum_{t=0}^n \frac{C_t \cdot \alpha_t}{(1+d)^t}$$

C_t = the expected net cash flow in period t

α_t = the certainty equivalent factor associated with the risk for period t (e.g. $\alpha_1 = 0.70$ meaning a 70% probability to get C_1)

d = discount rate, risk free

Basic Risk-Adjusted DCF Techniques

Sensitivity analyses

- Another approach to cope with uncertainty.
- Similar: scenario analyses.
- It examines how the NPV or IRR changes related to the assumptions made.

	Worst case	Expected	Best case
Income	→	→	→
Expenses	→	→	→
Risk (discount rate)	→	→	→
Timings	→	→	→
	NPV _W or IRR _W	NPV _E or IRR _E	NPV _B or IRR _B
→ Expected NPV = eNPV = (NPV _W x probability _W) + (NPV _E x probability _E) + (NPV _B x probability _B)			
→ Σ probabilities = 1			

More complex risk adjusted DCF techniques:

- Monte Carlo Simulations
- Decision Tree Analyses
- Real Options



Dividing the Intrinsic Value

How can the intrinsic value of the new IP be divided between the licensor (the seller) and the licensee (the buyer):

1. Excess earnings concept

- If a licensee uses a discount rate where both his expected return on the investment as well as the risk related to the project is incorporated, then all of the “positive value” of the calculated NPV need to go to the licensor
 - The licensee buys the patent and pays a lump-sum equal to the NPV value
 - NPV value is spread via upfront payments, stage payments and royalties

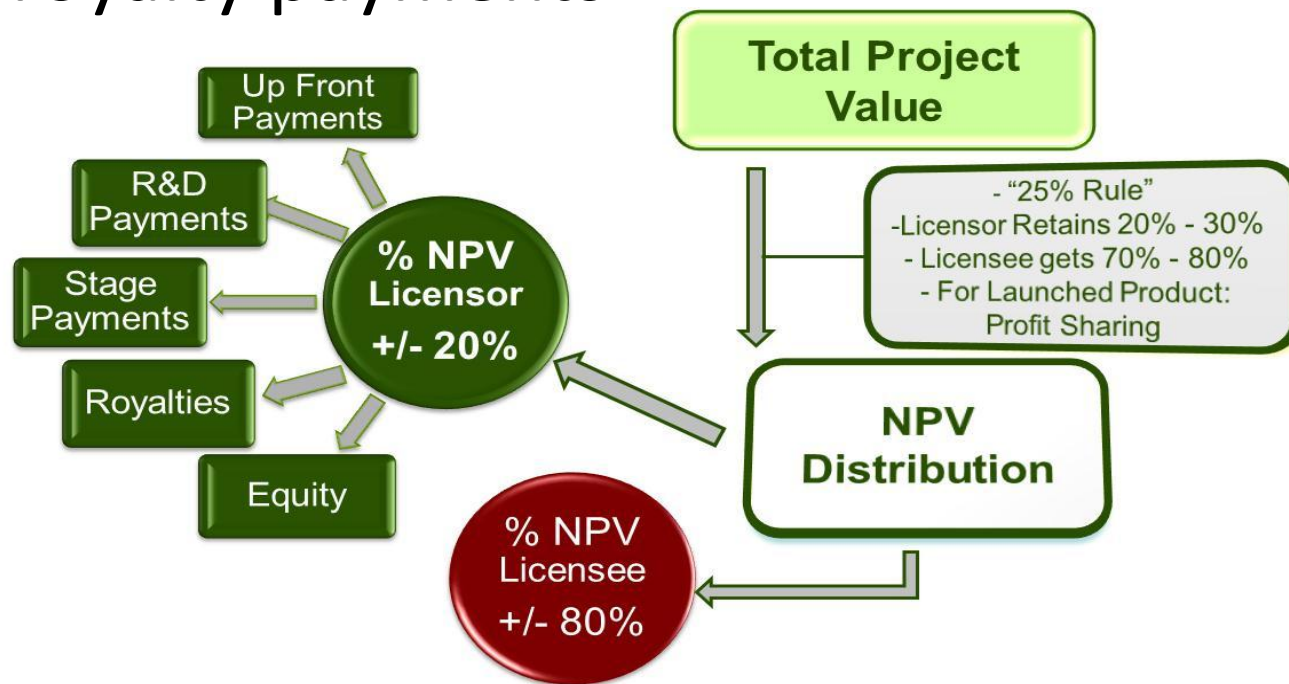
Dividing the Intrinsic Value

2. The 25 percent rule

- If seller and buyer agree that a discount rate will be used that provides only the appropriate present values of all the future benefits, given the risk of the project, then the resulting NPV value should be divided in a way that reflects the contribution of each party, *e.g.* using the 25 percent rule
- Building an excel model together with the “goal seek” function or “scenario manager” function can be very helpful

Dividing the Intrinsic Value

- This 25% of the NPV can be paid as a lump-sum or spread over time via upfront, stage and royalty payments



Dividing the Intrinsic Value

3. The FRAND Licensing Terms

- Similar to the 25% rule for dividing the value (NPV) of a project, also the FRAND approach can be used.
- In this case the NPV needs to be divided taking in account the investments made by each party.
- Also in this case an excel model together with the “goal seek” function or “scenario manager” function can be very helpful

Example : Scientific Nutrient Calculator

(US\$Mio)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Turnover	0,00	0,10	0,50	0,80	1,50	3,00	5,00	9,00	14,00	16,00
COGS	0,00	0,04	0,18	0,30	0,55	1,11	1,85	3,32	5,17	5,90
R&D	0,10	0,50	1,10	0,11	0,20	0,41	0,68	1,22	1,90	2,18
Sales & Marketing	0,10	0,01	0,06	0,09	0,17	0,35	0,58	1,04	1,61	1,84
Gen & Admin	0,00	0,01	0,05	0,08	0,14	0,29	0,48	0,86	1,34	1,54
EBIT	-0,20	-0,46	-0,89	0,23	0,43	0,85	1,42	2,56	3,98	4,54
Discounted	-0,20	-0,42	-0,76	0,18	0,31	0,58	0,89	1,49	2,15	2,27
Cumulative	-0,20	-0,62	-1,39	-1,21	-0,89	-0,31	0,58	2,07	4,22	6,49

Discount rate	8%
NPV	6,49 Mio
IRR	47%

25% rule: 25% of the NPV should go to licensor i.e. 1,62 Mio
 75% of the NPV should go to licensee i.e. 4,87 Mio

Example

Licensor receives **\$0.1 mio upfront**
 Royalty on net sales: **5.5%**

- Make Excel Model including licensor & licensee
- Include stage payments
- Use goal seek function to determine the royalty rate on Net Sales for which the licensor retains \$1.62 mio

Final Remarks

- There is no such thing as a general rule for valorization (spin-off, licensing) or business development.
- There is no general rule for licensing or deal terms.
- Study various approaches & scenario's.
- Each deal is unique.
- The market dynamics and size of competition is important
- Good negotiations are important and value needs to be distributed in a fair way.
- A good fit and trust between partners is essential.

THANK YOU FOR YOUR ATTENTION

More info:



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