



EDF IP valorization

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What does « IP valorization » mean ?

- For a company like EDF
- ... when not in a « product » or « medicine » or «digital content » mass market business ?



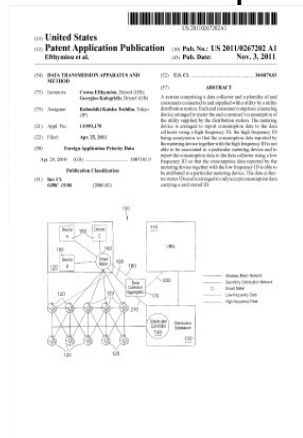
Still ... a growing expectation of revenues ?

- Something designed for EDF needs may have some value for:
 - Some subsidiaries
 - Other utilities
 - Other industries or Businesses

IP Playground

Patent

ex: "Data Transmission apparatus and process"



Software ©

```
sig = flexique_langue
sgr = flexique_genre

//vérifier si le nom de
if (!flexique_image)
if (file_exists('
flexique_image
```

Trademark

ex : Linky, ERDF



KNOW-HOW

ex: spécifications techniques, prescriptions, exigences, etc.



Database



D&M



So what is valuable for EDF ?

- Patents ? Not so sure ...
 - More defensive ...although smartgrids might turn to be a « telecom like » standardization activity
- Bundle of technologies: Any combination of the following
 - Patent
 - Software
 - Know-How
- Three remaining questions:
 - How to quickly detect « a priori » the good topics
 - How to value them
 - How to restrain uncertainty around the IP.

How to identify the good candidates for valorization ?

| | Limited | Middle | Strong |
|--|--------------------------------|----------------------|-----------------------------|
| Influence of EDF in the value chain | not implied | EDF customer | EDF lead customer |
| Potential usage outside EDF | unknown | homologues | other fields |
| Deployment schedule | Interest but no clear schedule | Schedule in progress | Scheduled |
| Technology Readiness level | PoC | Prototype | Final product |
| Business trend | Unclear | Small signals | Visible industrial projects |
| HR | Technical skills only | Second row support | Leading and autonomous |

Examples of possible valorization paths for R&D IPs

| Type of Valo Vs Markets | | Internal solution | New activity for EDF Group | Partnership with another company | External licence |
|-------------------------|--------------|-------------------|--------------------------------|--|------------------|
| External revenues | EDF | Used inside | New ingeneering services | | |
| | EDF + Energy | | New BU EDF | Equity (In-kind) Codev Licensing Spin-off + Service Contract | Licensing |
| | EDF + B2B | | New EDF subsidiary + Licencing | | |
| | B2B | | | | |

EXAMPLES OF CREATED START-UP



Using IA to leverage industrial performances

Propose a eco-system for Blockchain services



About valorization success

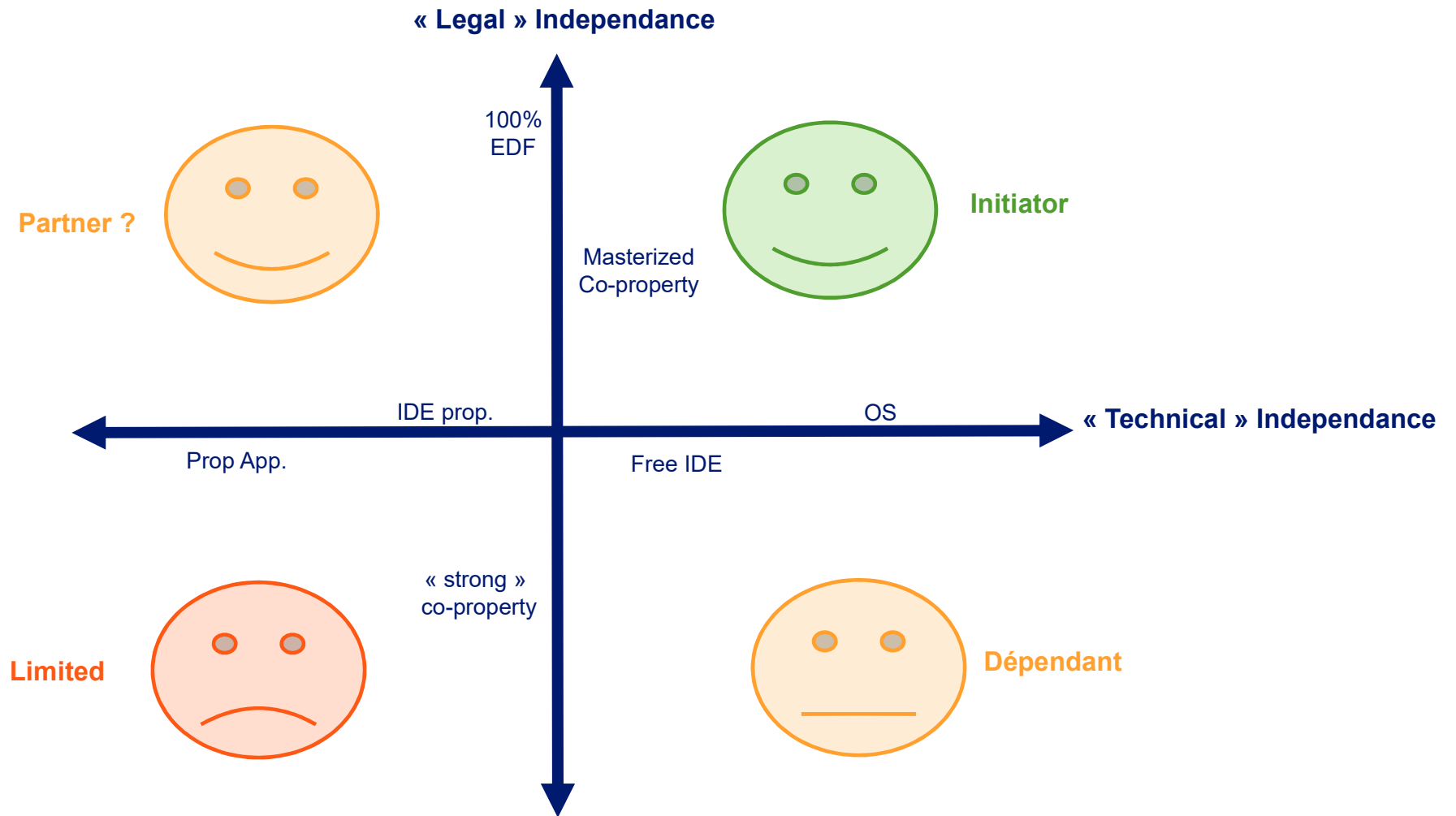
- Minimize uncertainty
- Leverage commercial efficiency
- Use the right approach for value proposal



How to restrain uncertainty ?

- Uncertainty kills the valorization
- Technical independance
 - Masterizing the technology
 - Proven usage (performances)
 - Significant value among other integrated part
- Legal independance
 - Ownership
 - Or partnership allowing to free the exploitation.

How to restrain uncertainty ? The Software licencing example



Leverage commercial efficiency?

- So far ... Select the right partners
 - For SW for instance, EDF try to partner with different SW editors that will help to adress a given market segment each, provided they have already a strong customer base in that segment.
 - Cost of commercialization is key, the goal is to add a value proposal to an existing community.
 - Partner with an editor in the domain of electric network simulation
 - Partner with another in the nuclear domain
 - Partner with another in the domain of Metrology, NDC...

Licensing: Use the right approach for value proposal

Legal, Market, financial parameters ... a standardized activity: DIN77100

- Historical cost approach: But weak confidence in the business plan for the licensee...
- Market approach: Look at similar transaction in the past in some existing databases (mostly US).
- Revenues approach: Look at the discounted cash-Flow ... find an rate that can cope with a suitable return time of investment. Better confidence on the BP.
- Saved cost: Guess what the technology can avoid to spend in trying to solve an identified problem : « The thorne in the foot ».

Parameters influencing royalties

IPR scope

Type of techno (SW vs HW)

Exclusivity

Type of industry (standards, royalty cap, pool ...)

Net margin

Quality, maturity (TRL), necessity (TRL) of the Techno

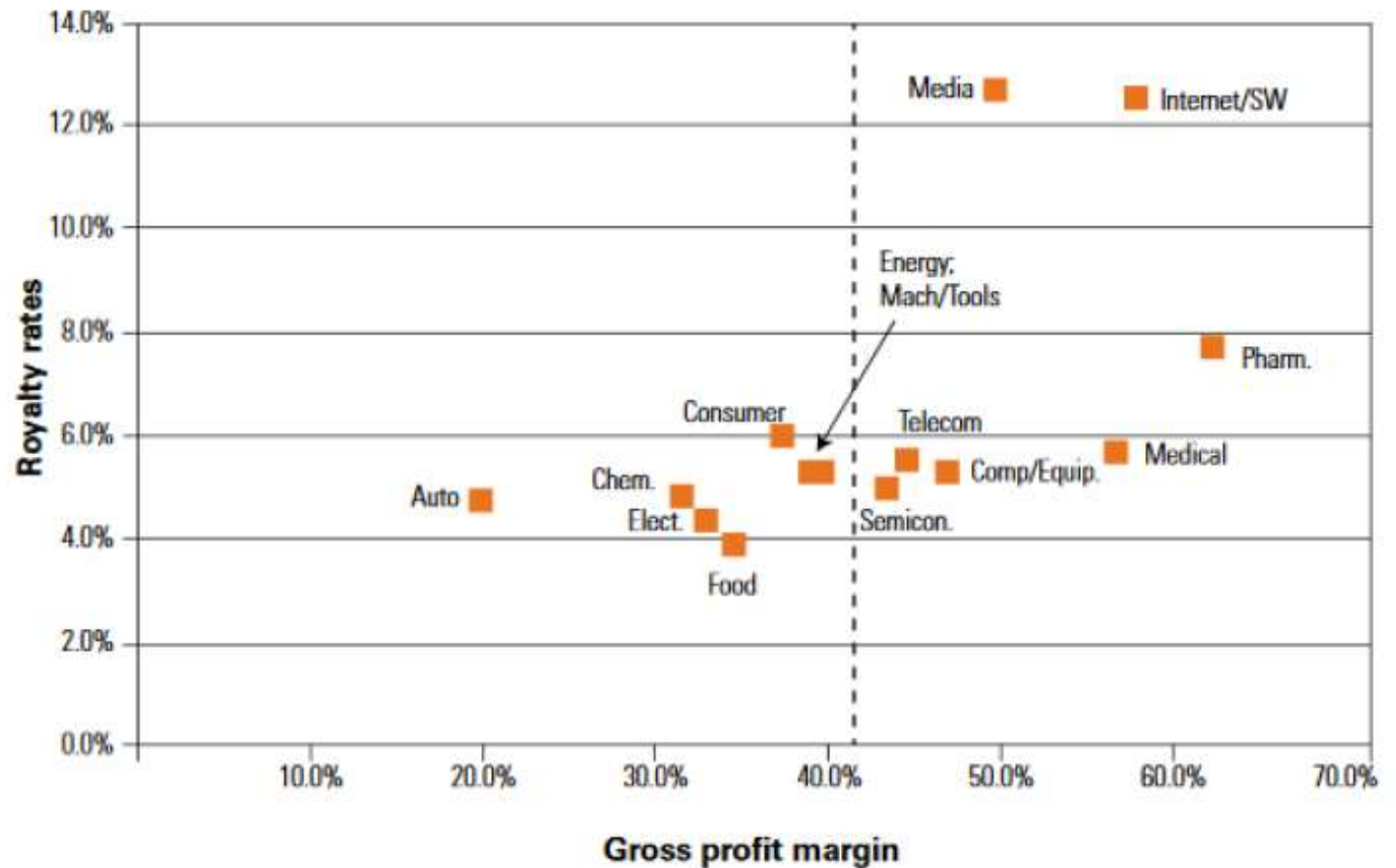
Remaining effort to be done by the licensee

Aging of the Technology

Sales volumes

Etc.

CHART 2: 2007 REPORTED ROYALTY RATES AND GROSS PROFIT MARGINS



Licensing: some good question to ask

No rules, not a rocket science:

Could be from 0,5 to 5% of gross sales ?

Could be between 1/4 or 1/3 of EBITDA margin and 1/4 or 1/3 Gross margin ?

Very depending on the licensee business context.

Ask the good questions :

« How much will the product cost ? »

« What is the licensee business plan ? »

« What is the margin of the licensee ? » and « what fair value can I ask for a win-win Business situation ? »

rather than « What is the technology value ? ».

THANKS !