# Knowledge transfer: from university to industry

Introduction to advanced marine technologies

#### SUMMER SCHOOL (SS1)

Almada, Portugal // June 27th, 2016

STRONG

## Presentation · University of Girona

14,000 students

1,300 staff (academics and suport)

Science and Technology Park (where our infrastructure is)

In the city of Girona (Catalonia region in north-eastern Spain) 100,000 inhabitants

Nearby the border with France and the coast (30Km)



## Presentation · University of Girona



## Overview

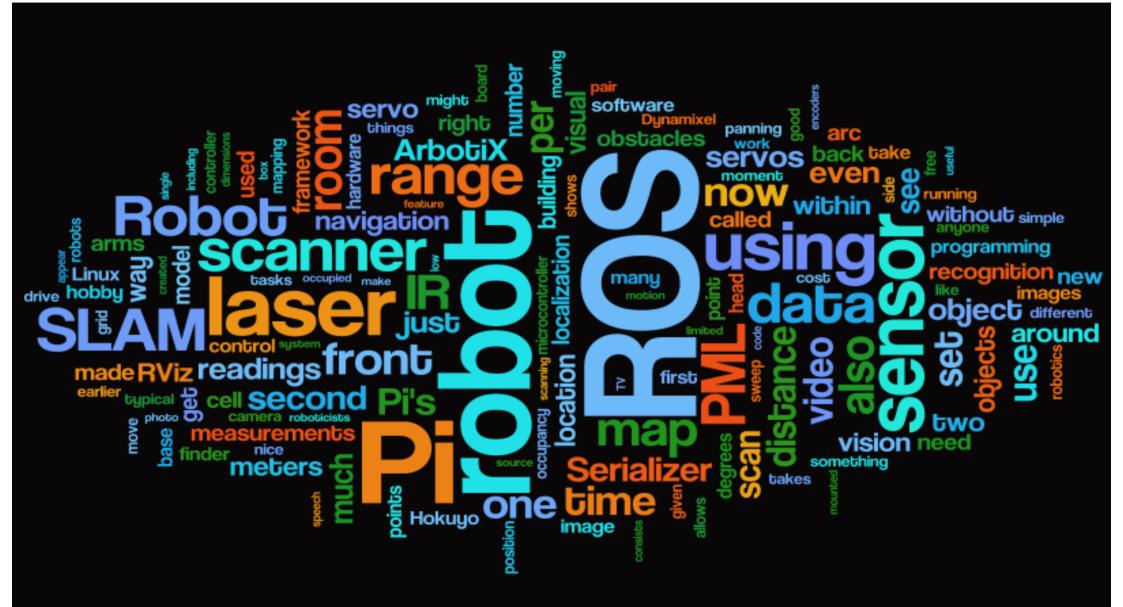
Intro: What is Knowledge Transfer?

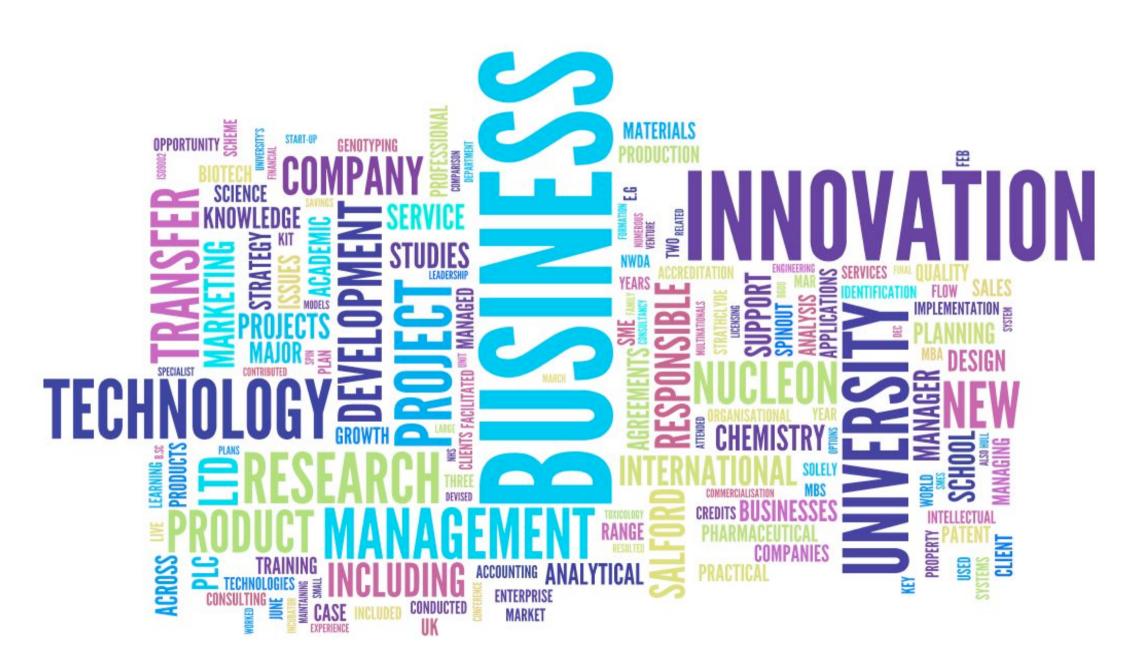
Why is it so relevant?

Our experience in Underwater Technologies field

Wrap-up!







## Intro: What is Knowledge Transfer?

IT IS A PROCESS ....

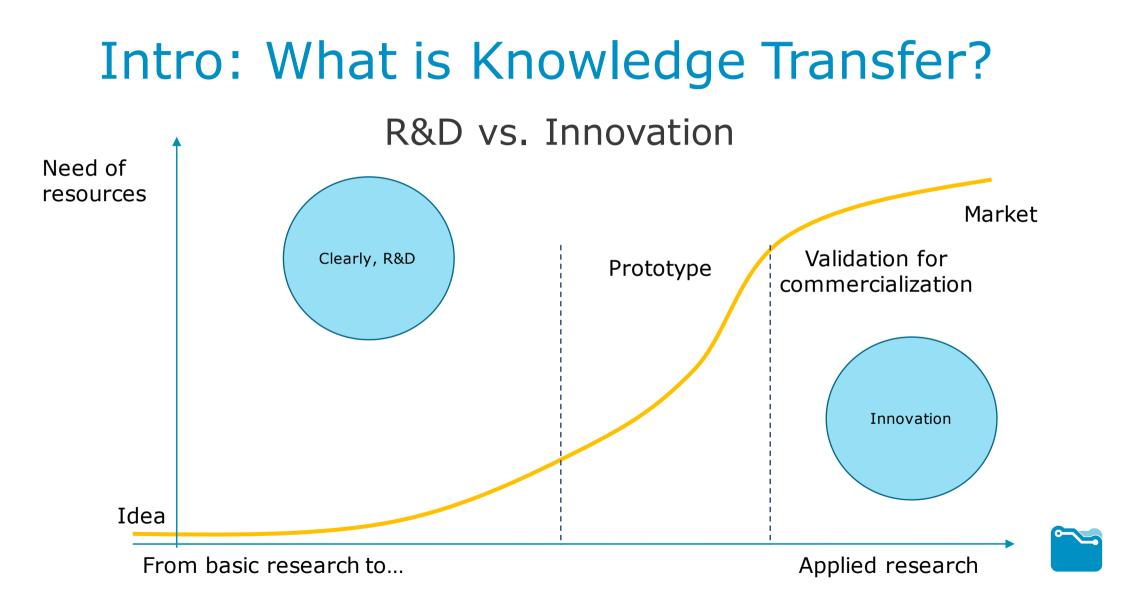
THAT TAKES PLACE WHEN...

KNOWLEDGE DEVELOPED AT THE RESEARCH CENTRES...

... BECOMES OF INTEREST OF EXTERNAL AGENTS

... WHO ARE INTERESTED IN IT TO INNOVATE IN THEIR PRODUCTS / PROCESSES!





## Intro: What is Knowledge Transfer?

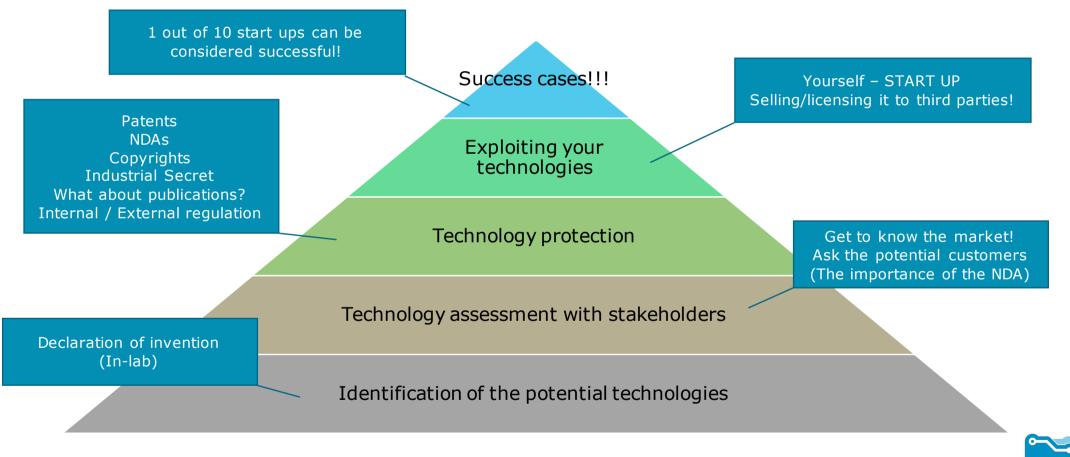
#### Technology Push vs. Market Pull







## Intro: What is Knowledge Transfer?



Why is it so relevant?

## IT'S ONE OF THE WAYS THAT WE HAVE TO GENERATE VALUE OUT OUR TECHNOLOGIES AND GIVING BACK TO THE SOCIETY THEIR INVESTMENT IN US!



#### STEPS TO BE DONE TO TRANSFER YOUR TECHNOLOGIES

- 1. Analyze all the technologies in the lab
- Try to assess / priorize them (put them in a technology map and contact stakeholders). Each development phase may lead to different type of ways to further progress.
- 3. Define a strategy for protection / exploitation
- 4. Jump!

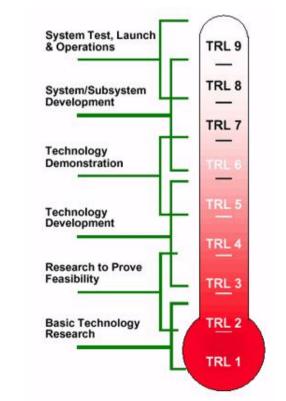
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Take into account SPECIALLY in Engineering field:

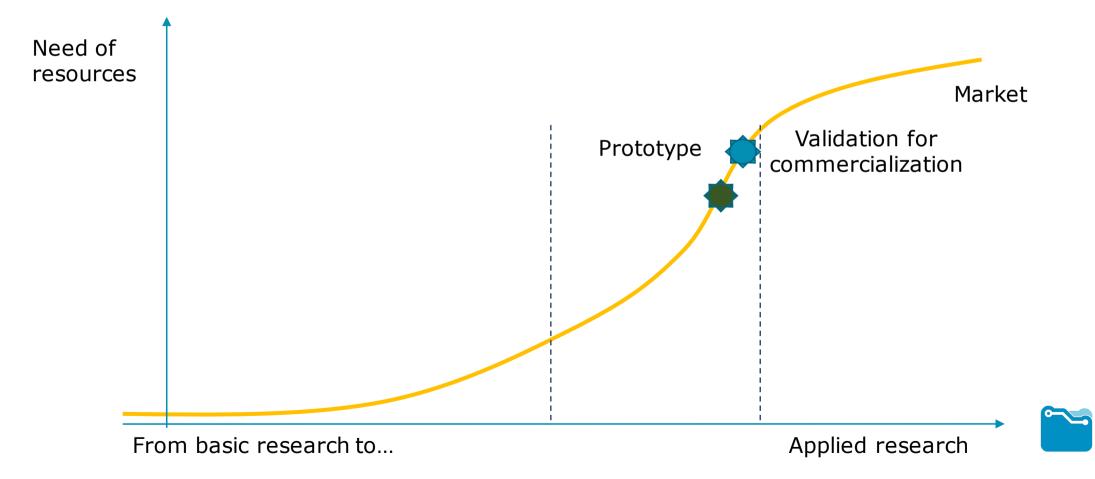
- Publications
- Patents
- -Development TRL
- -Commercial products



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**OPTIONS FOR PROTECTION:** 

- 1. Patenting
- 2. Publishing
- 3. Keep industrial secret
- 4. Copyright
- 5. Others

# Prototype

#### **OPTIONS FOR EXPLOITATION:**

- 1. Look for a buyer (of the technology)
- 2. License agreements
- 3. Spin Out
- 4. Do nothing! :D



Market

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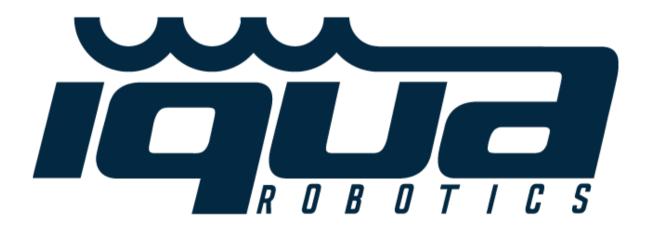
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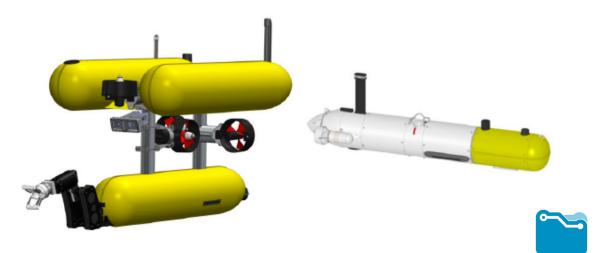




### **IQUA ROBOTICS will:**

Sell 2 of the technologies developed by the University of Girona:

GIRONA 500 AUV SPARUS II AUV



## **WIN 2 WIN** for the company and for the University:

- The company gets high tech
- The company gets highly qualified teams
- The University gets part of the shares
- The University gets license agreements (manages to transfer knowledge to the society)
- The University and the company may get in touch for further collaboration
- The company, in the end, becomes a qualified partners, so does the University for the company!



## Wrap up!

IT'S **IMPORTANT TO FAMILIARIZE WITH BUSINESS TERMS** SINCE YOU BEGIN YOUR PHD

YOU **DON'T HAVE TO BE AFRAID TO ASK**, BASIC CONCEPTS MAY MAKE YOUR LIFE EASIER

IT'S GOOD TO **HAVE A STRATEGY AND FOLLOW IT,** IF YOU FAIL EVEN FOLLOWING IT, WHAT?

THE CRAZY PEOPLE OF GIRONA HAVE DECIDED TO CREATE A START UP COMPANY, HELP US PROMOTING IT! ;)





## Thank you for your attention!

www.strongmar.eu

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