Using your NTNU PhD to start a new business

NTNU
Technology Transfer as

WE HELP GOOD IDEAS

Consultancy / Patents / Financing / Market Surveys / Business Development
Prototypes / License Agreements / Contracts and Agreements

Creating value from research results and good ideas

NTNU
Technology Transfer as

An innovation toolbox
for employees and students

NTNU

2 700 Employees
22 000 Students

HELSE MIDT-NORGE

16 000 Employees
6 Regional bodies

HiST TRONDHEIM

420 Employees
8 000 Students

We have been helping inventors since 2003, and this is what has happened so far:

1045
Ideas received

401
Patent applications

61
Spinn-offs

56
Licenses

631 130 399 kr

«Softmoney» for our spin-offs


NTNU
Technology Transfer as

IDEAS
and opportunities

PEOPLE
skills and expertise

ECO-SYSTEM
for innovation

FINANCE
and FtO

An organized

VALUE CREATION PROCESS

with tasks accomplished to a given *quality*, *time* and *profitalility*

SPIN-OFFS and TECHNOLOGY LICENSE

ThermaSiC

Thermal spraying of silicon carbide (SiC)

Modified SiC powder and coating deposition:

FORMULA

SiC + [10 – 30wt.% oxide sintering aids in form of metal salts]

- Metal salt precursor : $Al(NO_3)_3$ → Al_2O_3

  $Y(NO_3)_3$ → Y_2O_3

  $Mg(NO_3)_2$ → MgO

- *Oxide sol-precursor:* *$AlO(OH)$* → *Al_2O_3*

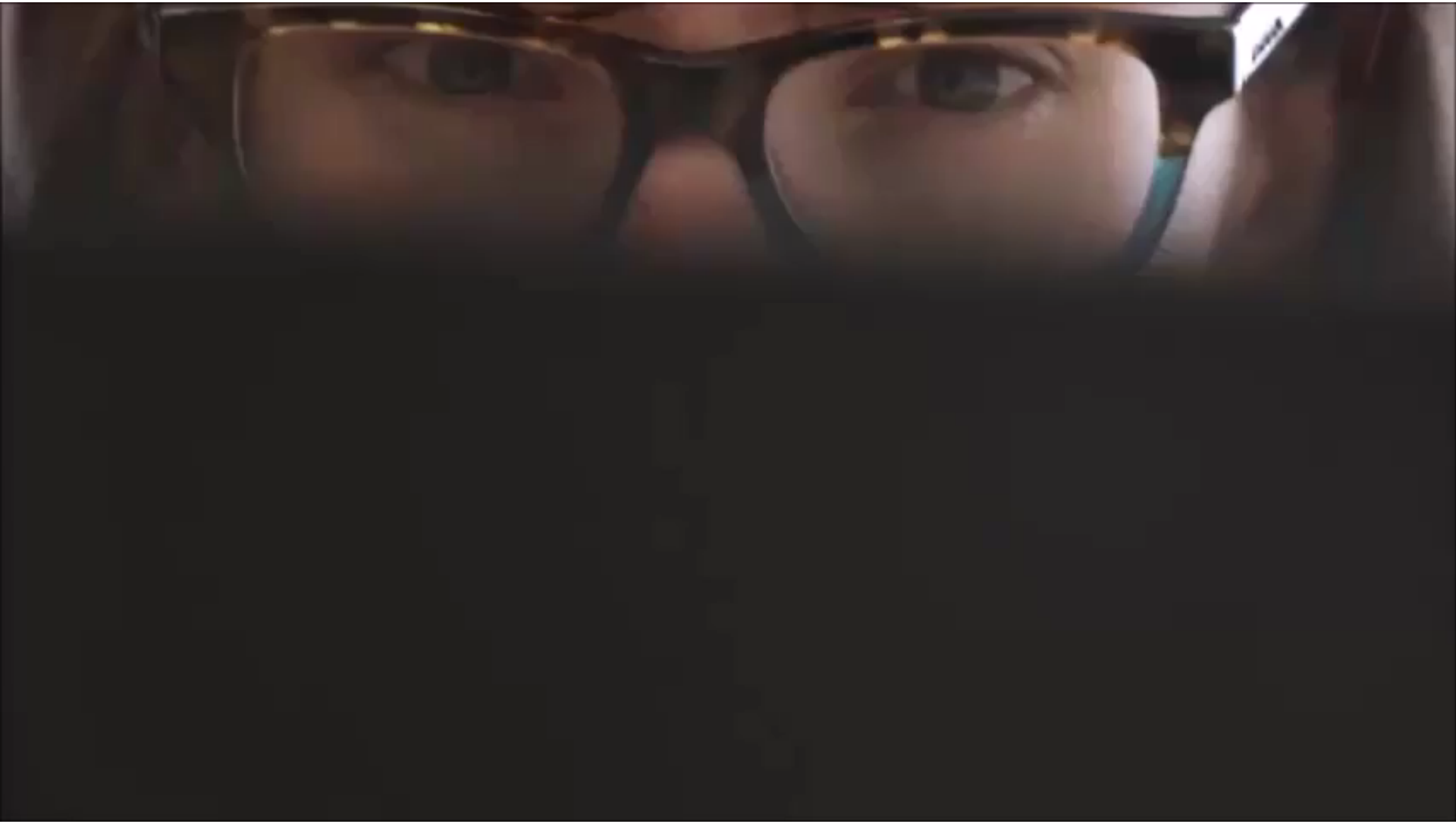
  Zirconium n-butoxide → *ZrO_2*

  Titanium(IV) isopropoxide → *TiO_2*

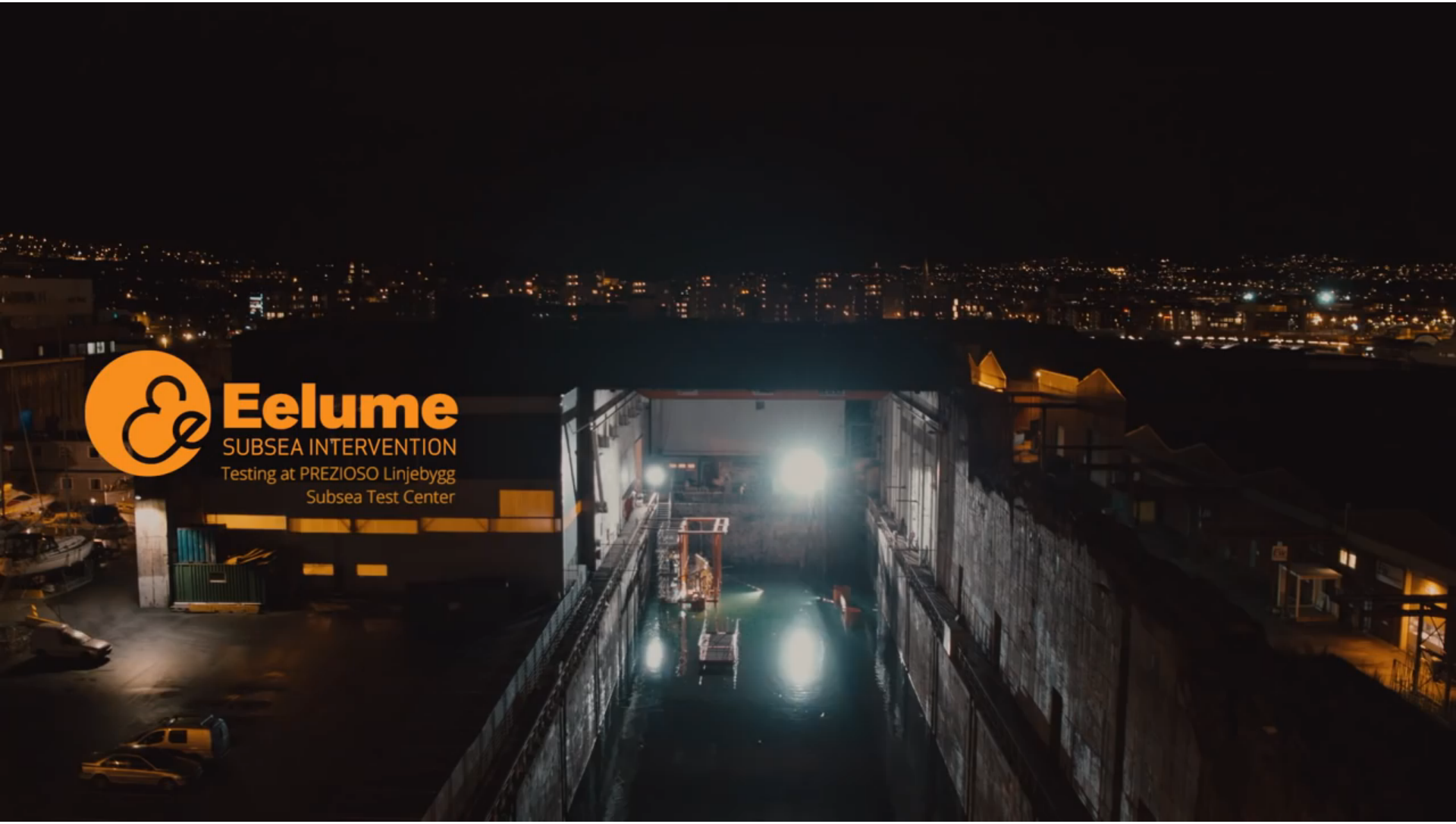
Other types of oxide-sol precursor or metal salt precursor also possible to use

Method of production:

a) Prepare $Al(NO_3)_3$+$Y(NO_3)_3$ in ratio 5: 3 molar to yield Yttrium Aluminum Garnet (YAG) phase upon calcination at 1000 C
b) Prepare 5wt% of SiC suspension + cationic dispersant. Homogenize the suspension by stirring.
c) Add precipitator, in our case: AHC with ration [AHC: Al^{3+} = 10:1), mixed well.
d) Strart titration process of YAG precursor metal salts 2 ml/min
e) Spray-dryed the suspension
f) Calcination of the spray-dryed powders at 1000 C
g) Ready powders to thermally spray using HFPD.



Eelume
SUBSEA INTERVENTION


Eelume
SUBSEA INTERVENTION
Testing at PREZIOSO Linjebygg
Subsea Test Center

Thank you!

NTNU

Technology Transfer as