

Däckdagarna Stockholm 19-12-16
Fredrik Wettermark

COMPOSITE
D/E/S/I/G/N
Sweden AB

”How it all started”

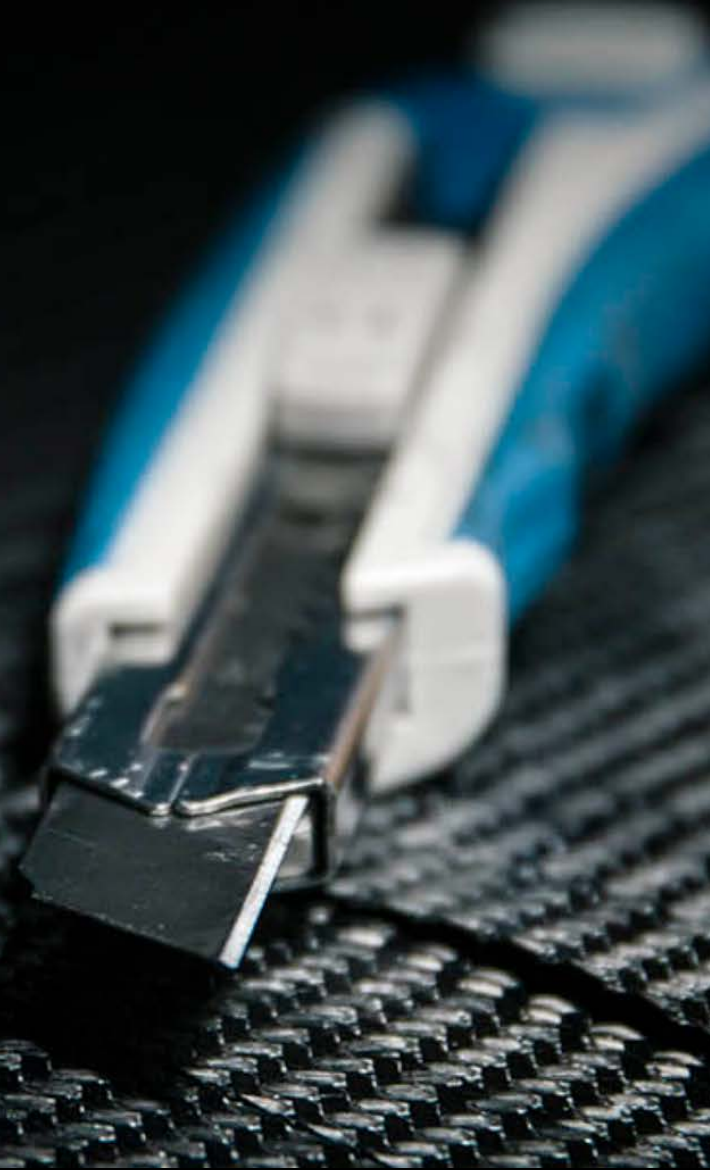


COMPOSITE
DESIGN

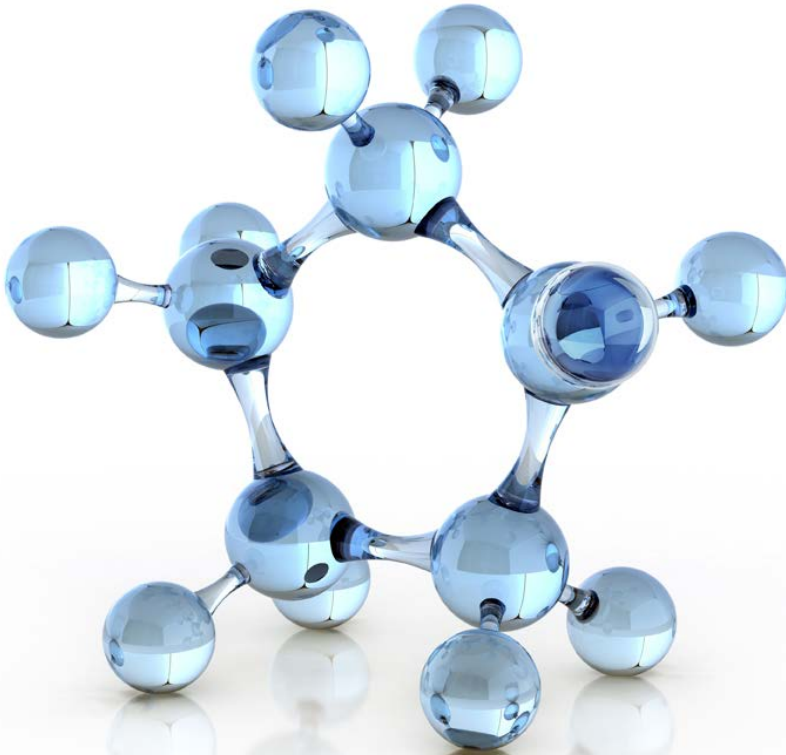
SHAPING
TOMORROW



Technically advanced CFRP composites,
targeting applications in industries
where light weight materials and
material strength are key differentiators.



Key competences



1

Automotive industry

2

Air transport industry

3

Medical industry

4

First responders

5

**Construction &
building industry**

Automotive case: Koenigsegg

Development and concept design of the Koenigsegg carbon fiber monocoque chassis.



Development and series production of composite parts for Koenigsegg Automotive.

Together with Koenigsegg Automotive developing the "Air Core all carbon rim".

More automotive cases

Volvo GWT

- A concept for spotweldguns made from carbonfiber composites.

Volvo LVD

- Prototype work around the Volvo LVD car project (" Light vehicle design " all composite car).

Volvo ECB

- Production of components for the Volvo ECB bus project (Environmental Bus Concept).

Racing industry

- Production and repairs of carbon fiber racing parts for national and international racing teams.

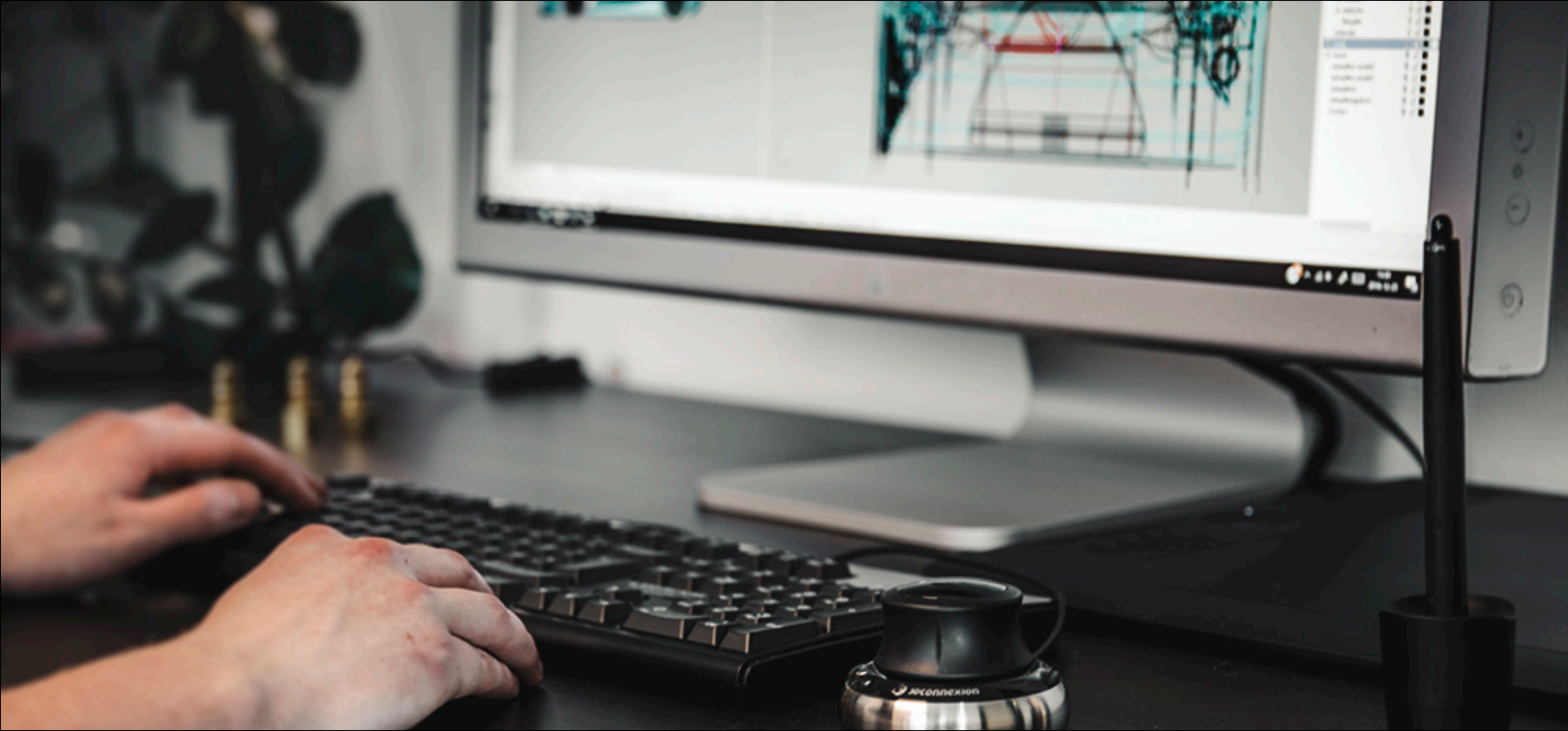
Air transport case: Telair



Developed and produced components in composites for loading and unloading of passenger luggage in airplanes (sliding carpet system).



First responders / medical industry



Armor protection for light weight vehicles (Saab Automobile) and military vehicle applications (Bofors)

Medical equipment (stretchers and X-ray tables) (Arjo-Huntleigh)

Construction and building industry

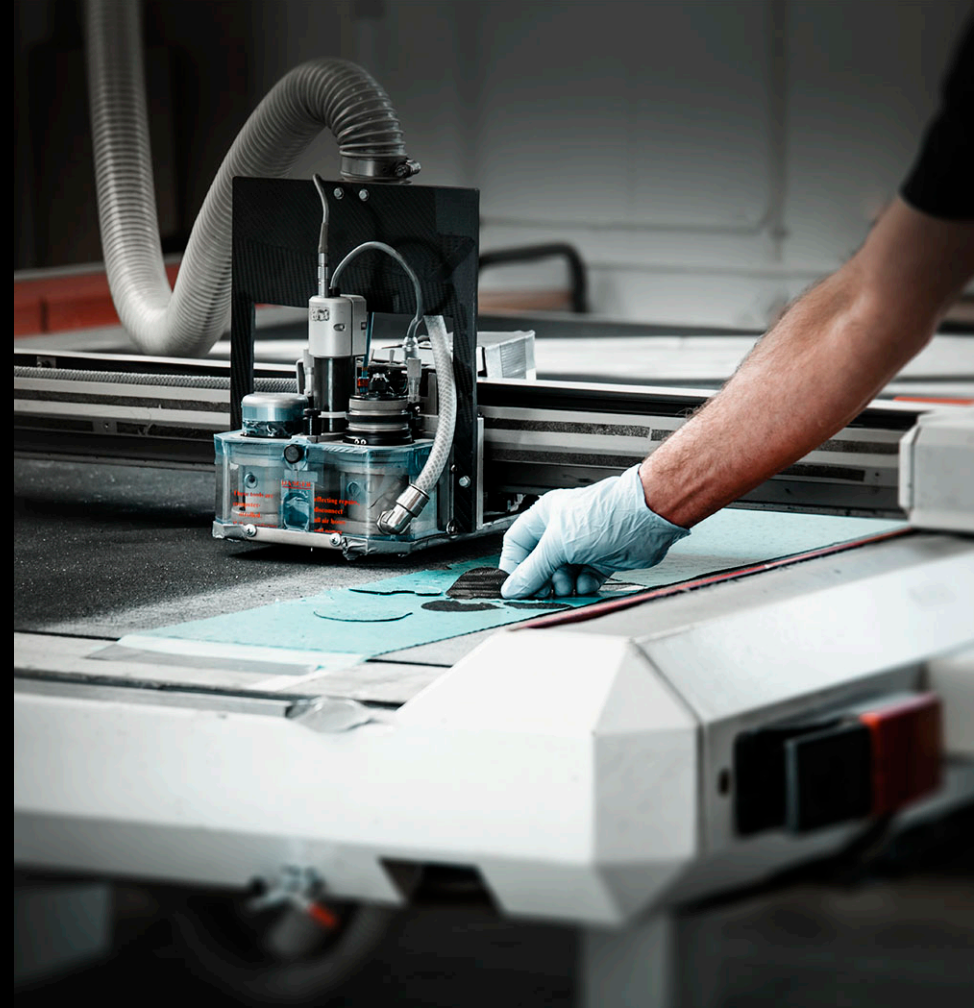


2016 Founded "Kompositbroar Sverige AB" to develop technique for building composite bridges (Pat. Pending).

2017 Installation of the first composite bridge in Sweden for the city of Malmö (Bicycle- and pedestrian bridge with fully FRP carbon fiber structure).

Hidden talents

- Patented method for “in time” production of composite wheel rims.
- Patented method for production of composite con rods and other race engine parts.



A true partnership

*“There is no use
rowing harder if we
aren’t rowing in the
same direction”*





Our DNA

1

**Technically advanced CFRP composites,
for industrial applications.**

2

**– Competence, knowledge,
service and ambition.**

3

**Automotive, Air transport, Medical, Construction
& building and First responders...**

4

**Patented techniques for Wheel rim
production, Hi Tech parts, ...**

5

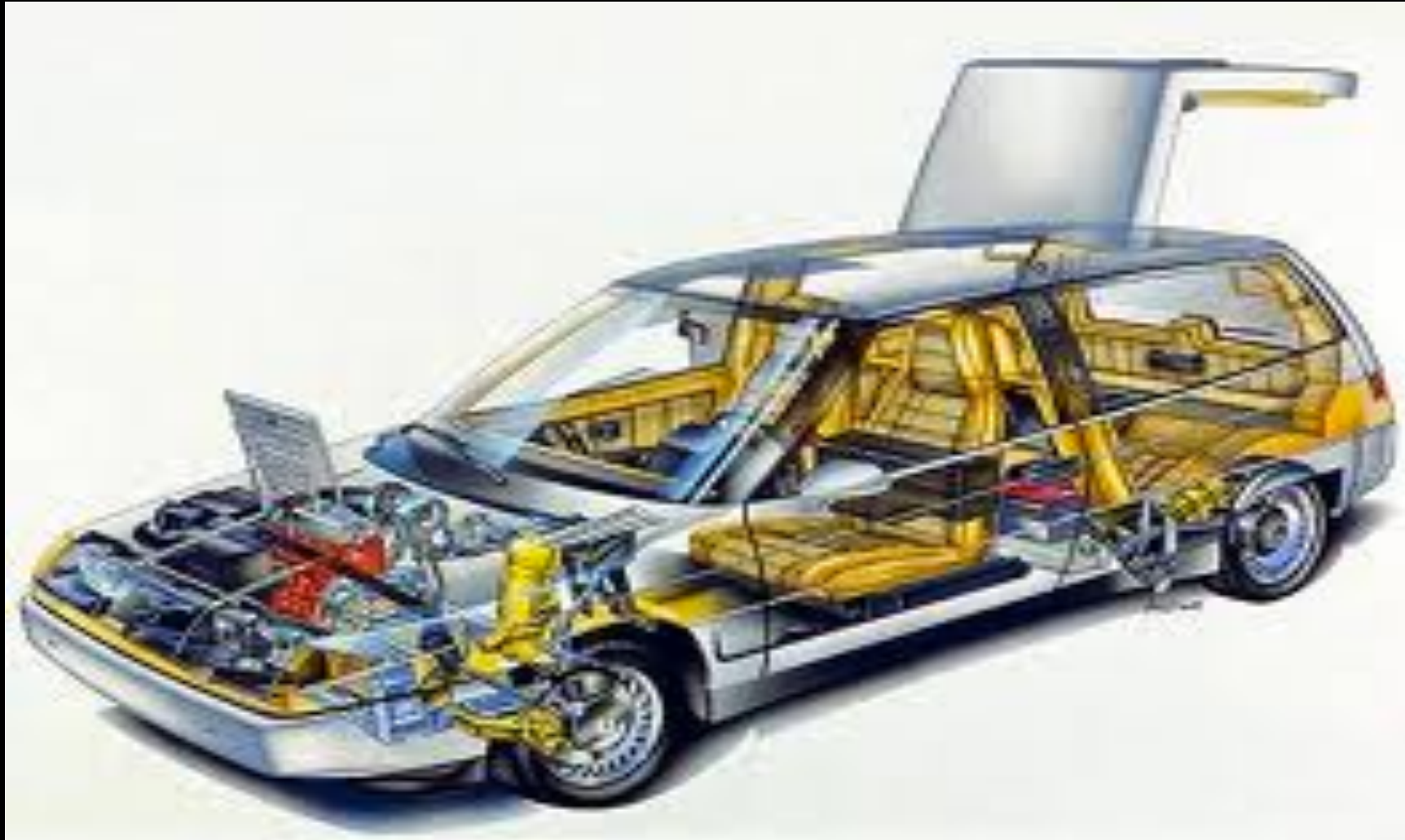
**Where material light weighting
and strength are key differentiators.**

THANK YOU



60 sek instruktionsvideo i hur man tillverkar
kolfiberkomposit med pre-preg och autoklav!

Volvo LCP 2000 från 1979 vikt 750 Kg



Volvo LCP 2000 på display i Volvos museum



Kolfiber monocoque till sportbil vikt ca 70 Kg



”Gul bil”



Svenske DTM föraren Joel Eriksson !



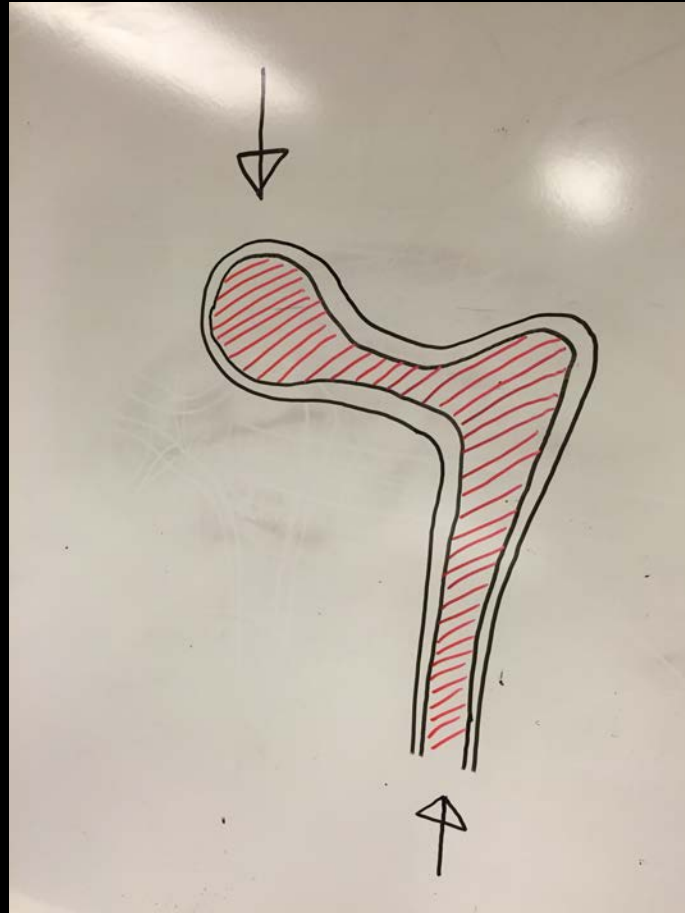
Röntgentransparent operationsbord i kolfiber



Kolfiber- samt linfiber kompositstol



Spänningskoncentration i lårben



En väldigt dålig ide' !



Kedjehjul utfört i kolfiber



Viktbesparing jämfört med helmetall struktur ca 40%



Kolfiberfälg samt kolfiber swing Honda Fireblade



Formverktyg i aluminium för tillverkning av spännhjul för atlantkabel tillverkning ABB



1 st kolfiber hjul halva för spännhjul



Volvo's "flexibla" kolfiberfälg utan pneumatiskt däck



457,94 km/tim (285 mph) världsrekord på allmän väg
satt i Nevada 5 nov 2017
med Michelindäck monterade på kolfiberfälgar



Koenigsegg kolfiberfälg 20 X 12,5" vikt 7,2Kg
motsvarande aluminiumfälg 12,0 kg



Fälgar för ca. 2.000.000:- Sek



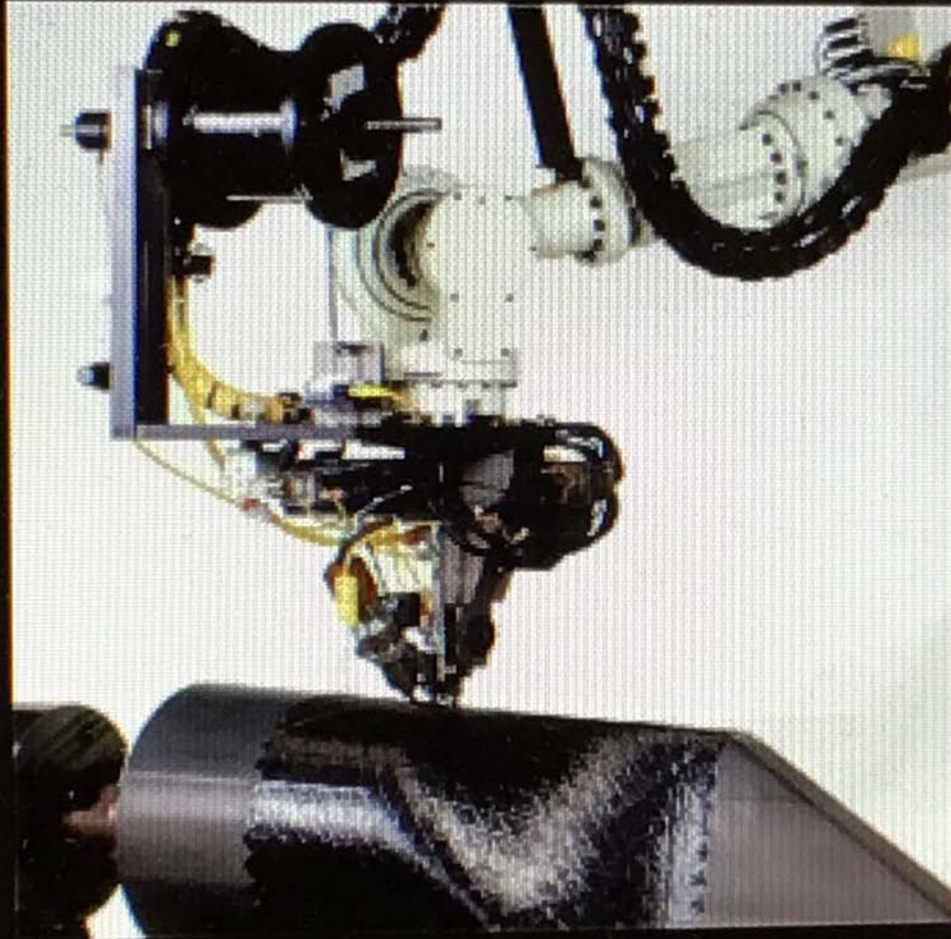
2-Delade aluminiumverktyg för fälg tillverkning



Fiberupplägg fälg-ekrar



Robotapplisering av kolfiber



Robotiserad produktion av kompositstruktur



”2.000.000 years later” !
Thank you

