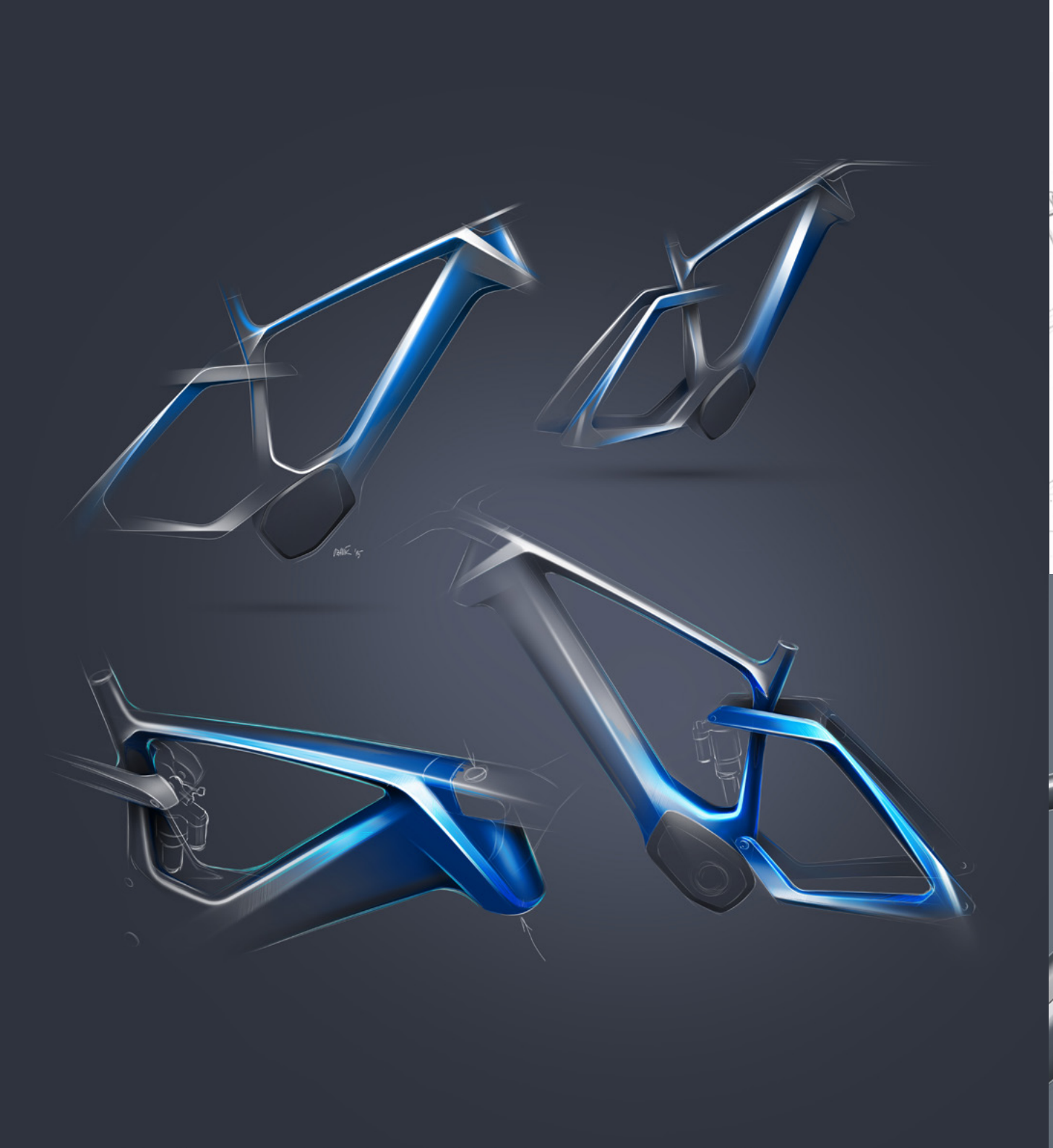
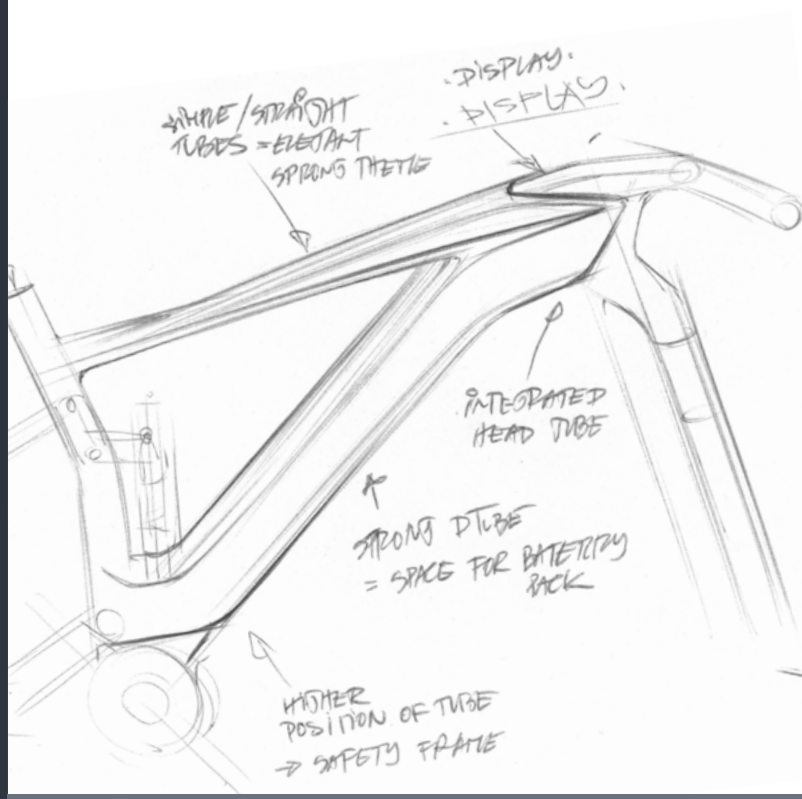
WORLD'S FIRST
3D PRINTED
ENDURO E-BIKE
KINAZO E1
SCHWALBE
MAGIC MARY
FOX
SRAM



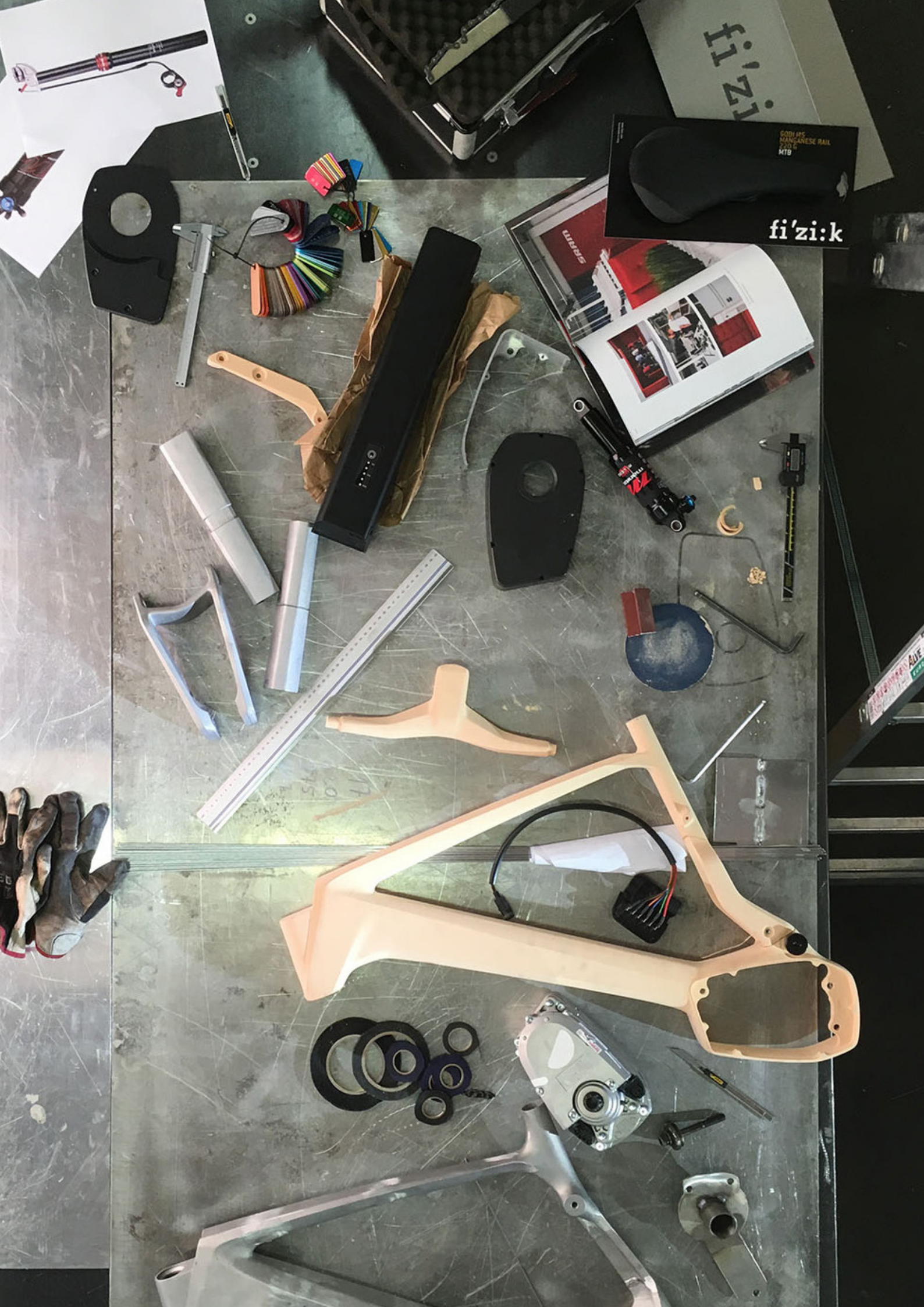

SIMPLE / STRAIGHT
TUBES = ELEGANT
STRONG THEFTIE
DISPLAY
DISPLAY
INTEGRATED
HEAD TUBE
STRONG DTUBE
= SPACE FOR BATTERY
PACK
HIGHER
POSITION OF TUBE
→ SAFETY FRAME

INTRODUCTION /

In the beginning there was an idea to build something out of this world – an e-bike, a bicycle with an integrated battery and engine anyone would fall in love with at first sight. Every figure, weight and style would be customized to the journey the customer wants to take. It would be unique, with the finishing touches and configuration to be made by the customers themselves.

The idea became real with a 3D print of aluminium powder, rapidly evolving and enabling not only the manufacture of individual products, but also to print a design traditional methods could not have managed. Innovative 3D printing technology optimises the active weight, geometry and various technical parameters with significantly lower time and cost and no long manufacturing delays.

Today after years of hard work we finally present Kinazo E1 - the world's first 3D printed enduro e-bike.


fi'zi:k
SRAM

FIRST OF ITS KIND /

Refined frame geometry with tuned centre of gravity allows dynamic and agressive riding in extreme terrain. Fully integrated battery supports sleek and eye-catching frame design. Intelligent electronic control system works through mobile app connected with GPS navigation. Unique frame is printed by progressive 3D technology of Additive Metal Manufacturing using Direct Metal Laser Sintering (DMLS).

E1 model was printed in Volkswagen Slovakia by Concept Laser X Line 2000R printer which is actually being the largest serial made metal melting machine. This 3D printer is based on Direct Metal Laser Sintering technology (DMLS) which uses a precise, high-wattage laser to micro-weld powdered metals and alloys to form fully functional metal components. Thanks to the Concept Laser printer we were finally able to print e-bike frame parts as single pieces instead of printing smaller fractions (our first prototype was welded from 11 pieces). 3D printed Kinazo E1 offers wide options of customization like geometry modified to body of rider, specific design, shape, reinforcement or even material microstructure.

marin
MAGIC MARY

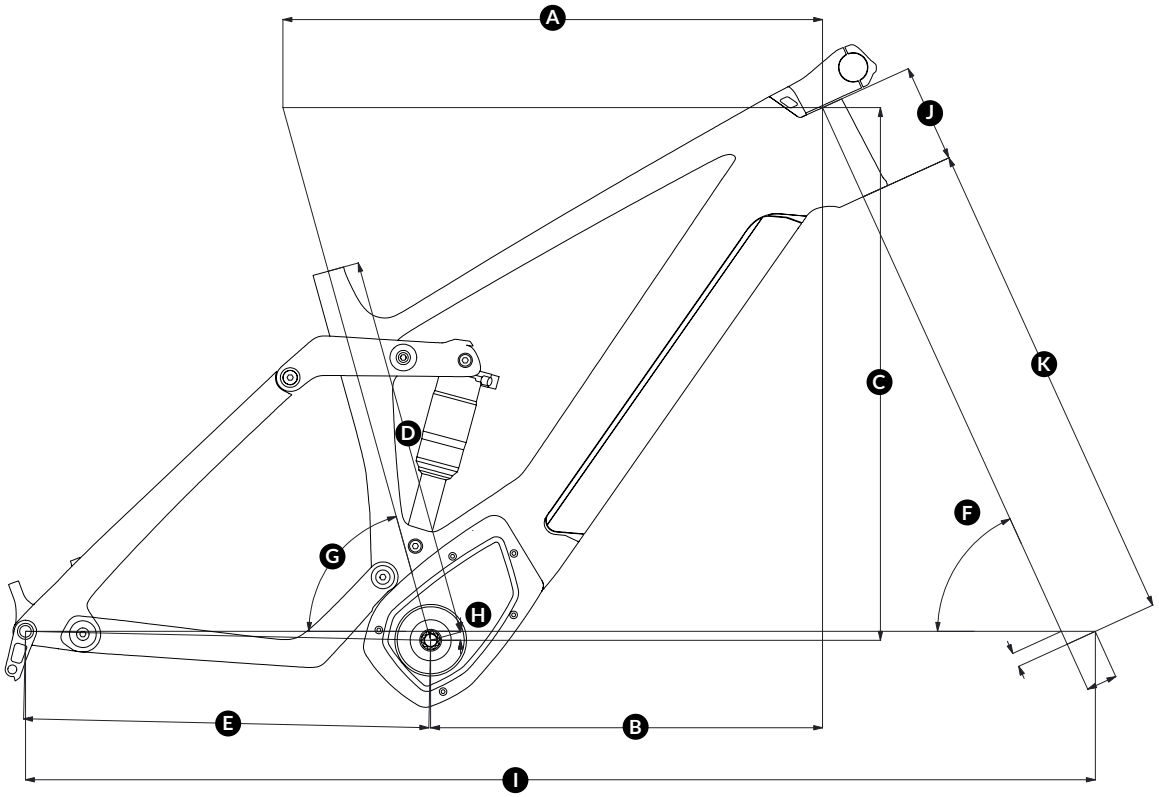
FRAME DESIGN /

Development of E1 frame construction was based on the highest demands being put on enduro mountain bikes which must be able to handle balanced uphill climbing while staying reliable in steep and dangerous downhill sections at the same time. First tests of frame prototype revealed surprisingly good riding capabilities. For performance focused riders the quality of ride especially bike control and stability in terrain is essential. That's why not only centre of gravity, but even more factors like overal bike weight feeling, frame stiffness etc. have to be considered in development process. Suspension system consists of 4 pivots which means no negative influence on rear triangle from brakes and drivetrain. E1 ranks among progressive frames with fine geometry and shorter chainstay length which makes it stable and easily maneuverable.

TECHNICAL DATA /

Category	Enduro I Trail I All-mountain
Frame	3D printed aluminium
eDrive	Brose 36V / 250 W mid-drive
	Pedelec do 25 km/h
	S-Pedelec do 25 km/h
Battery	BMZ integrated, 500 - 650 Wh
Fork travel	160 mm
Wheelsize	27,5 +
Frame size	customizable
Weight	20 kg

FLOAT X
FOX



GEOMETRY - SIZE M /

A	Toptube length	605 mm
B	Reach	440 mm
C	Stack	598 mm
D	Seattube length	430 mm
E	Chainstay length	455 mm
F	Headtube angle	65,50°
G	Seattube angle	74,50°
H	BB Drop	10 mm
I	Wheelbase	1201 mm
J	Headtube length	110 mm
K	Fork length	552 mm

We currently have our first functional models in M size. We will be able to produce any other size as well. All sizes can be customized to fit the body of its owner. Measuring is provided by Guru Fitting System. Please contact us for more information.

Photo by Adam Sakavy

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SCHWALBE
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Produced & developed by paul+murincreative

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Supported by IPA

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