



every child desired

**Choice ONE** 

Hormone-free Fertility Freedom For Life

> Investor Pitch Deck September 2023



## Problem 40% of pregnancies are unwanted

# Current contraception is mid 20th century technology

Despite classic contraception 121 million unintended pregnancies (UPs) annually, averaging 331,000 per day,

- 1 in 4 pregnancies is aborted
- 1 in 5 children is unwanted

#### **Current contraception is choosing the lesser evil:**

- The pill possible side effects, effectivity in practice lower
- IUD side effects, often not tolerated
- Condom unreliable, cumbersome
- Sterilization irreversible, surgical procedure



## **Ideal contraception is:**

#### **Hormone-/chemical free**



**Discipline free** 



**Passion Proof** 



**Long Acting** 



So that every child is desired



## Easy sterilization and then reversible



**Sterilization** is the most frequently used form of contraception worldwide, but it is a surgical procedure

**First: Choice** makes a superior method of sterilization:

- Minimally invasive, as easy as placing an IUD
- Lower cost (from +/-1600 € to 1000 €)
- Safe, because we made it removeable.

**Second: Choice** makes the sterilization reversible, many times over, so it becomes contraception.





Potential regret



Failure of procedure

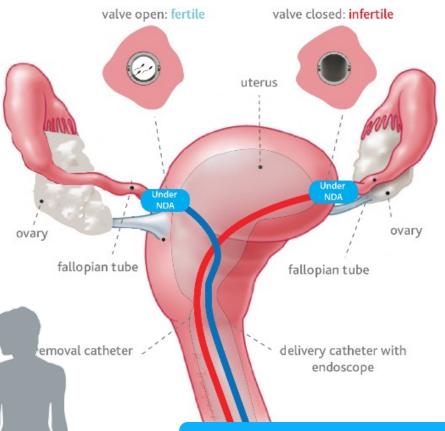
Sources: UN, Guttmacher Institute, Gates Foundation, UN Global Health Data Exchange as of 2019





## Solution – Choice One

Reversible sterilization



Choice One consists of three elements:

- Two mechanical valve implants placed at the proximal end of the fallopian tubes, closed prevents conception, open enables conception.
- A delivery catheter, with the smallest endoscope in the world at its heart for easy & reliable placement.
- A removal catheter, only for those rare cases where Choice is not tolerated - insurance policy.

CONFIDENTIAL



The device is placed during an outpatient (IUD-like) procedure within 30 min with the patented Choice **ONE delivery endoscope**, fitted with a camera.

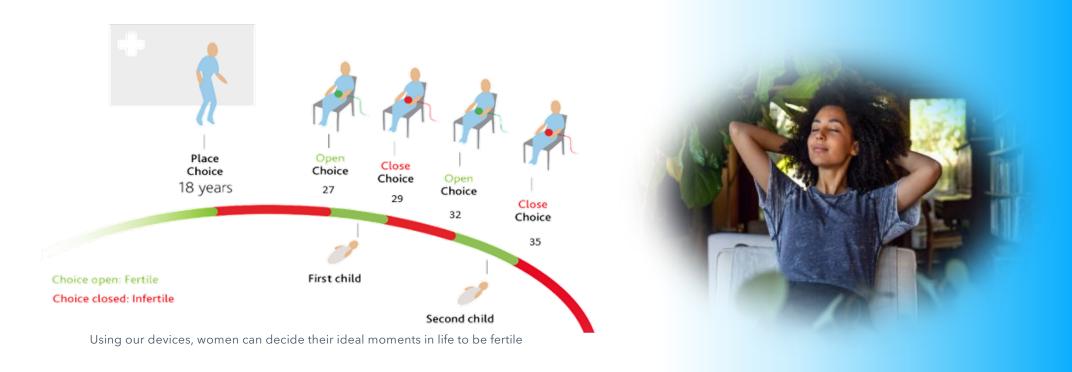




Choice strategically develops Choice One for sterilization first, before moving into contraceptive purposes.



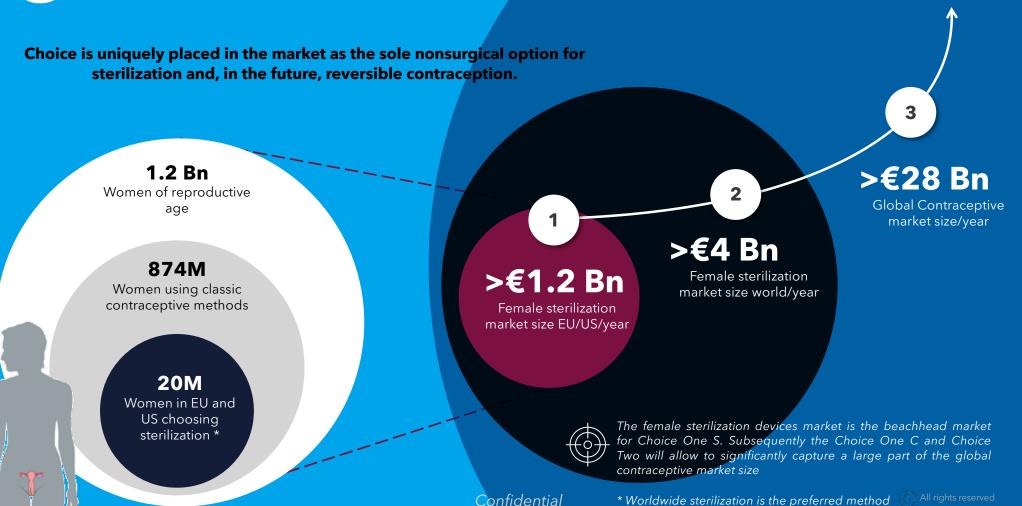
# Life with Choice makes birth control easy



We envision Choice as a **lifetime solution** for women, **easily implanted** in a one-time 30-minute outpatient procedure and the valves **easily reversed** whenever having a child is desired.

# Market Opportunity

Sterilization as beachhead



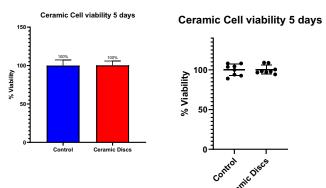


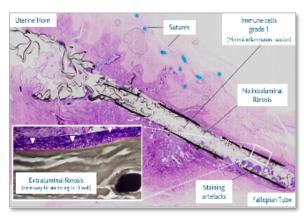
# Proof-of-Concept Excellent biocompatibility —

- In vitro tests show valve watertight of extremely high pressure (80mmHg), showing valve functionality - completed
- Flow modelling study showing air bubbles cannot block the hydrophobic duct wall completed
- Animal studies showing implants well tolerated
- In vitro tests to study interactions of the implant with human gametes - ongoing
- **Organoid tests** with primary human tissue to confirm biocompatibility of ceramic materials with fallopian tubes. *ongoing with first results shown*

## 28-day study in rabbits with Choice ONE followed by removal

- No signs of toxicity
- No effect on mortality
- Limited to no signs of fibrosis
- Mild to no host reaction





Representative histological staining of a rabbit fallopian tube after placement of Choice ONE

Cell viability of fallopian tube and endometrial organoids unaffected by exposure to ceramic components Choice implant.

All rights reserved



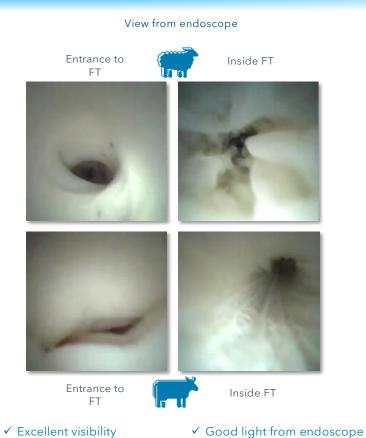
# Proof-of-Concept Ex vivo studies / First-in-human —

## Tests in extirpated bovine and sheep uteri

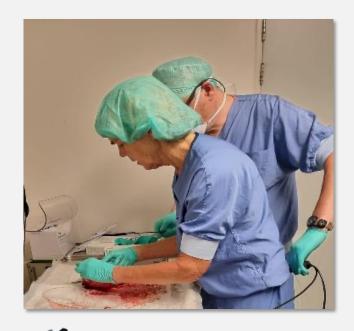




Conducted by professors Bas Veersema (Gynaecology) & Peter Vos (Veterinary Medicine)



## First test in extirpated human uteri





Conducted by professors Marlies Bongers & Bas Veersema (Gynaecology)

Confidential





# P: valve & motor granted, 3 patent pending, more in pipeline

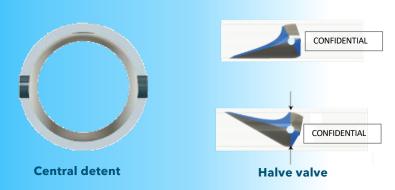
Choice has a handful of **already granted patents**, with more **pending** to maximize coverage in the EU and US

#### **Current granted patents (EU and US):**

- EU: EP3188699 US: 11291582 B2
  - Covering the overall idea, full valve, nitinol wire actuator and central detent
- · NL2026357
  - Concentric nitinol actuator and detent
- NL2026354
  - Halve valve (for Choice One S and Choice One C)

#### **Pending patents**

- P127160
  - Concentric Motor Motor folded around tube.
- P128127
  - Bias Detent Spring detent creates bistable valve
- P129989
  - Half Valve Half valve allows for incontinence



Next batch of patents will involve two packages

#### **Choice One Delivery system**

- Choice One stent/housing/valve/detent
- Switch mechanism
- Endoscope delivery
- Construction catheter & controls

- ready
- in development
- PoC created, in development
- in development

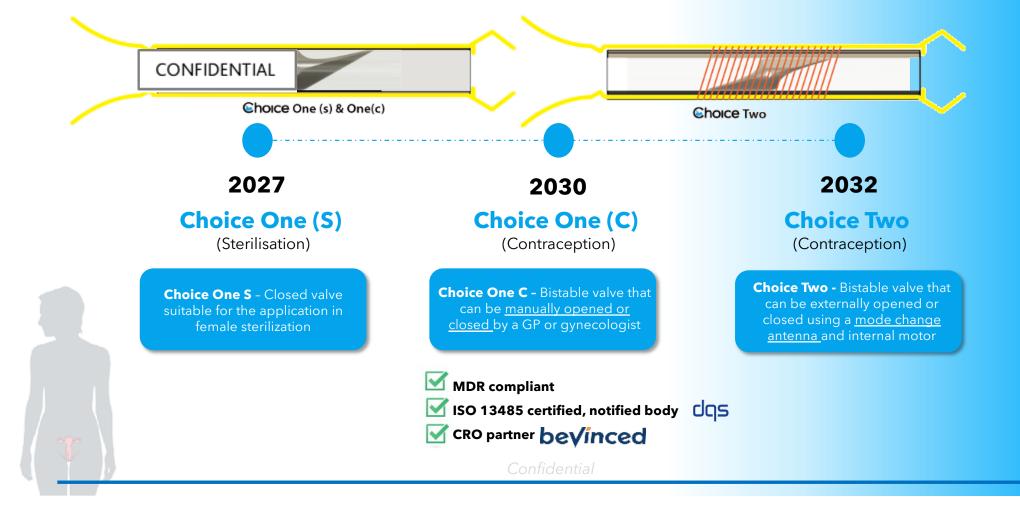
#### Choice One Removal System (concept level):

- Catheter cutter
- Catheter stent hook
- Chitin filler

All rights reserved

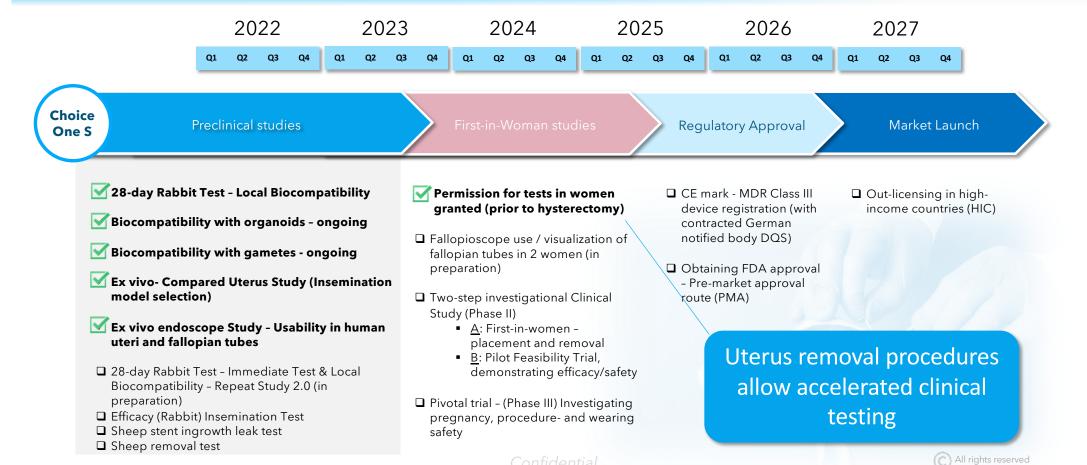


## Product Roadmap Sterilization quickest road to market





## **Development Roadmap**



# Market Opportunity

Bayer's Essure

The sterilization device market was proven by the Essure device, which was developed by Conceptus in 2002.

Essure was acquired by Bayer in 2013 for \$1.1B. In total, 750.000 women received Essure, of which 97% were satisfied.

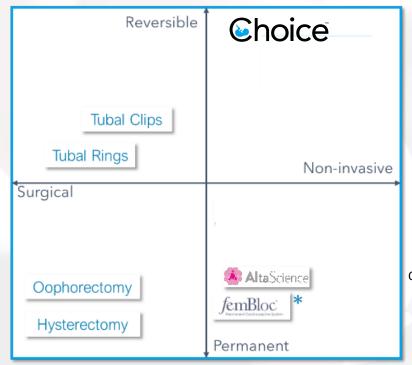
Not properly tested with no customer feedback it ran into problems (as pre- MDR products often did). Choice has addressed all Essure shortcomings (to be discussed under NDA).

Essure	2013	2014	2016	2018	2020	CAGR
\$ M	92	139	338	497	677	33%





# **Competition**

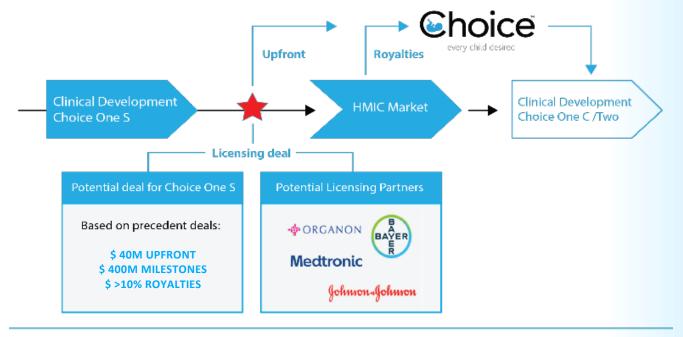


Choices' products demonstrate superiority in terms of reversibility and non-invasiveness compared to conventional/marketed sterilization procedures and contraceptive products.





## **Business and revenue model**



- Choice will adopt licensing deals, First EU & US, then India & China (HMIC), to scale & Africa for impact
- Choice expects an upfront payment and royalties on net sales
- Choice continues as a R&D centre for future versions & applications
- Choice ONE will be introduced to low income countries (LIC) in collaboration with NGOs.





### TEAM An experienced, multi-disciplinary team





#### Peter van de Graaf CEO/Founder

**Designer and innovator** with 25 years of experience and multiple patents in medical product design. Full-time CEO of Choice.



#### Leonie van de Kamer CCA

Very experienced **Clinical Research Professional** with 7+ year (served 8 projects and >20 clients in strategic decisions) of experience in the field of Medical Devices.

Investor Choice



#### Jörg Stroetzel coo

**Career in the development, sales** and roll-out of modular optical telecom systems, from development engineer to deputy CEO and board member.

**Investor Choice** 

#### **COLLABORATORS**



Thomas Nissl
Eminent stent
designer at TNTech



**Bram van Dijck**a.o. Global Group Director
Fertility at Organon

#### **SCIENTIFIC ADVISORY BOARD**



**Prof. Dr. Marlies Bongers** 

Gynaecologist
30 years experience, KOL tube implants
Princess Maxima Medical Center

**Prof. Dr. Bas Veersema** *Gynaecologist*Over 30 years experience, KOL tube implants, Utrecht Medical Center





**Prof. Dr. Ir. Peter Baltus** *Engineer* 

35 years experience wireless systems & IC design, Technical University Eindhoven

Michiel de Haan Venture Capitalist 45 years experience in Venture Capital firms , Aescap Venture Amsterdam



**Dr. Joris Bannenberg**Clinical advisor, Investor Choice

25 years med. device regulatory and clinical affairs. Founder of Avania & Bevinced Clinical Research Organizations.

Confidentia

#### **PARTNERS**













CLINICAL









# **Summary**





#### **TEAM & MISSION**

- FemTech product developer from Eindhoven, Netherlands
- Highly experienced team with extensive technological, business and clinical experience.
- Development of reversible and non-invasive sterilization and contraceptive devices for women
- Mission: Every Child Desired



#### **TECHNOLOGY**

- Valve based implants inserted in the fallopian tubes, blocking sperm and ova migration.
- Can easily be placed during outpatient procedure with endoscope.
- Achieved proof-of-principle ex vivo, biocompatibility, in rabbit tests, and in human extirpated uteri + fallopian tubes



#### **OPPORTUNITY**

- Seeking €2.5M equity financing in current round to:
  - First-in-women studies
  - MVP design freeze
  - Perform first insemination test
  - · Start conversation with FDA
- Targeting a licensing with Pharma/MedTech in 2027



Large, unserved market opportunity



Best-in-class innovative technology



Established experienced team and network



Tremendous societal impact



every child desired

Realizing lifetime hormone-free fertility freedom

Office-S 4.004 Torenallee 20 5617 BC Eindhoven The Netherlands

Looking for a €2.5M investment targeting a €28B market



https://www.choice.nu/



https://www.linkedin.com/company/choice-every-child-desired/

info@choiceforwomen.org

**Investor Pitch Deck** August 2023