Innovating Antibodies, Improving Lives

37th Annual J.P. Morgan Healthcare Conference
January 9, 2019

Genmab

Forward Looking Statement

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Building a Business that Transforms Cancer Treatment

Our Core Purpose, Strategy & Vision

Core Purpose

To improve the lives of patients by creating & developing innovative antibody products

Strategy

- Turn science into medicine
- Build a profitable & successful biotech
- Focus on Core Competence

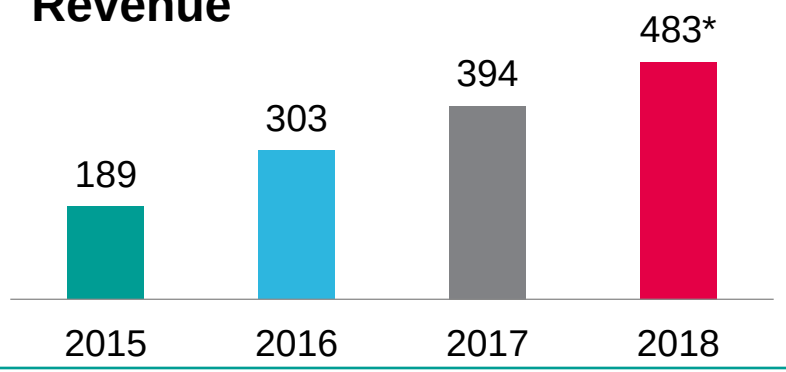
Vision

By 2025, our own product has transformed cancer treatment and we have a pipeline of knock-your-socks off antibodies

Track Record & Growth

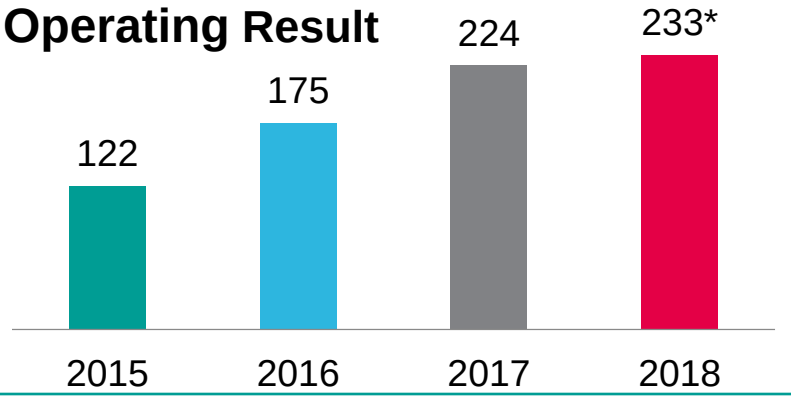
Expanding Top Line

Revenue



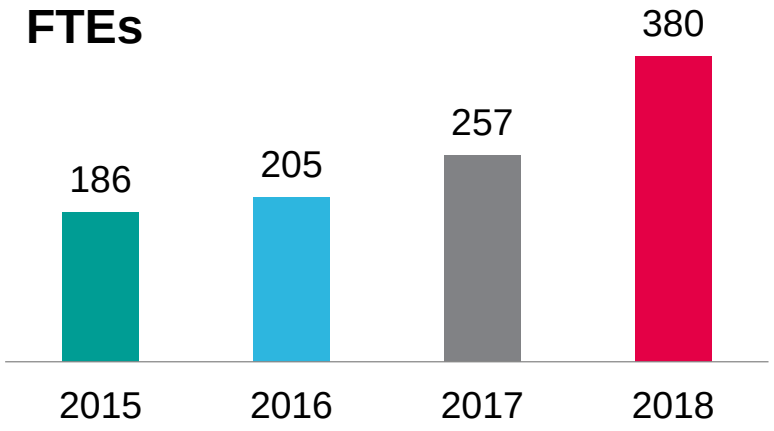
Sustainable Profits

Operating Result



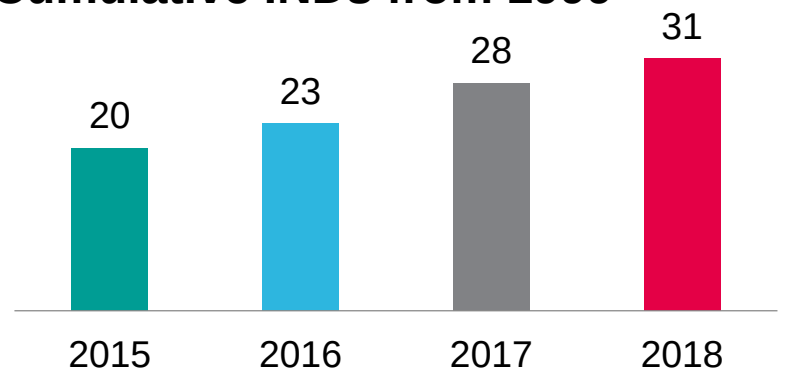
Adding Capabilities

FTEs



R&D Engine

Cumulative INDs from 1999



Our Own Products in Clinical Development: 2017: 2 | 2018: 4 | **2019: 7****

*All amounts in USD millions. USD 1 = DKK 6.00 / *Based on 2018 Guidance / **Projected*

Innovation Powerhouse

The Genmab Difference

Proprietary technologies allow us to build world-class pipeline

Deep insight into antibody biology & disease targets

Match in-house expertise with strategic partnerships

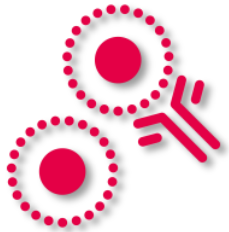
Strong pipeline of 1st – in-class / best-in-class products

Solid Foundation Built on Differentiated Pipeline

Foundational Products	Our own Clinical Pipeline	2019 INDs*	Technologies & Pre-Clinical
• DARZALEX® • Arzerra® • Ofatumumab [RMS]	• Tisotumab Vedotin • Enapotamab Vedotin • HexaBody®-DR5/DR5 • DuoBody®-CD3xCD20	• DuoHexaBody™-CD37 • DuoBody®-CD40x4-1BB • DuoBody®-PD-L1x4-1BB	• DuoBody® • HexaBody® • HexElect™ • Rich pre-Clinical Pipeline

Solid Financial Base Significant Potential

Fueling Innovative Clinical Pipeline



Accelerating Growth

R&D Engine

*Projected

Daratumumab (Marketed as DARZALEX®)

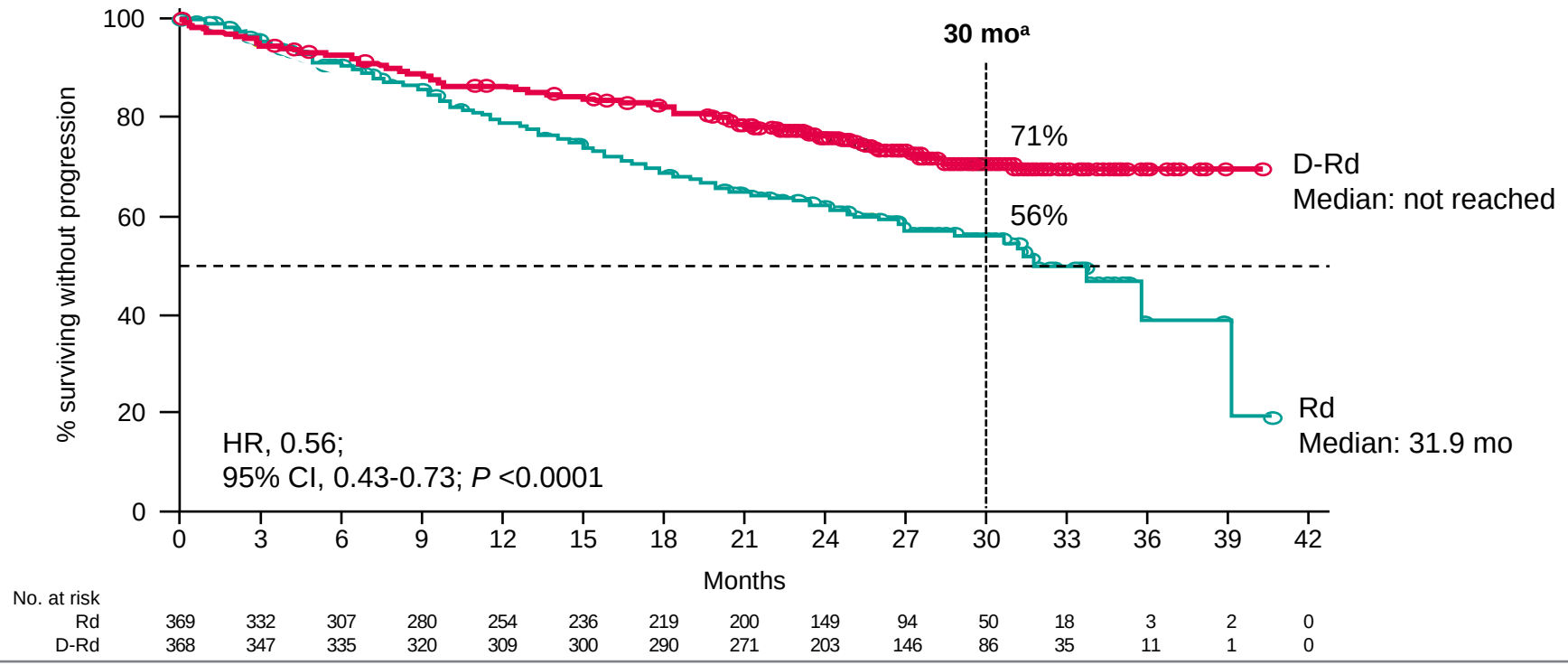
Reshaping Treatment of Multiple Myeloma Across All Lines of Therapy

- Collaboration with Janssen Biotech
- First-in-class antibody targeting CD38
- Reshaping MM treatment in all lines of therapy: Combining with current SoC & new entrants
- Unprecedented efficacy & consistent safety across Ph III studies
- Accelerating from Blockbuster to Mega Blockbuster

See local country prescribing information for approved indications

Daratumumab Efficacy in Newly Diagnosed Multiple Myeloma

Phase III MAIA Trial (D+Rd): ASH Dec 2018



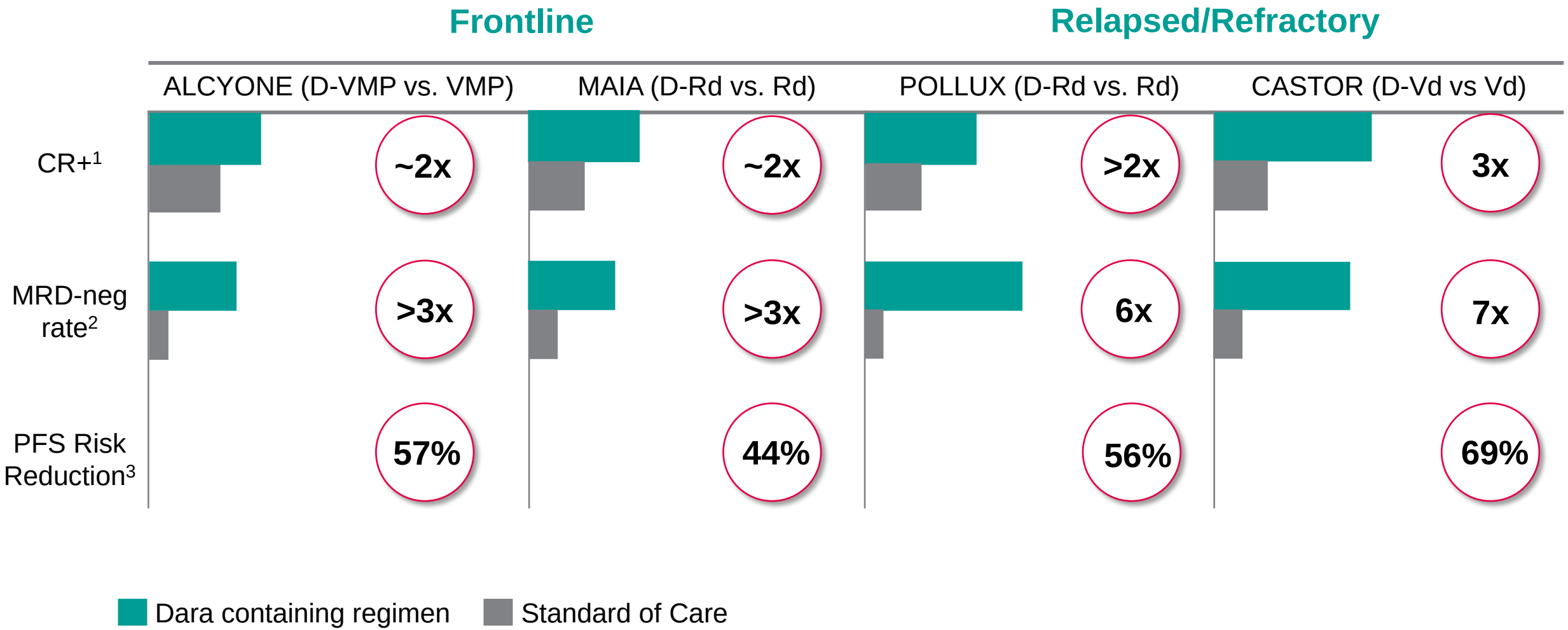
In D-Rd arm:

- 44% reduction risk of disease progression or death in patients receiving D-Rd
- Median PFS not reached
- **>3-fold higher MRD-negative rate**

D = daratumumab
R = lenalidomide
d = dexamethasone
PFS = progression free survival
MRD – minimal residual disease

2019 – Filing & FDA Approval Anticipated

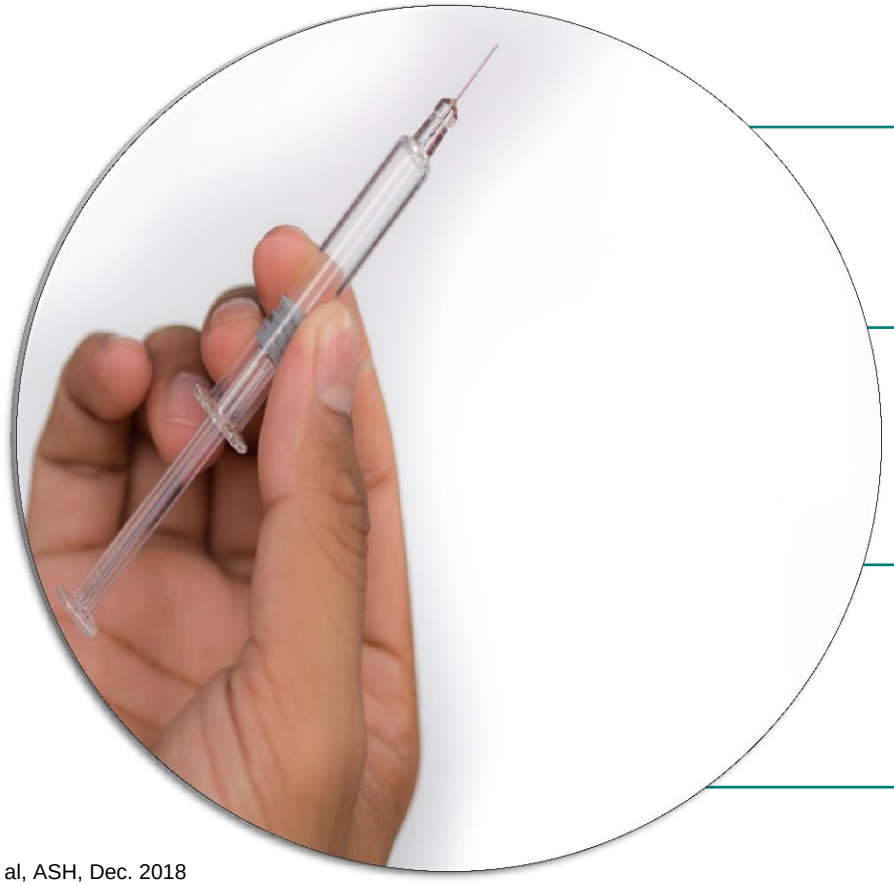
Daratumumab: Proving to be the Critical Driver Across Different Combinations & Treatment Lines



Data as per ASH 2018 [1]Includes CR + sCR; [2]At 10^{-5} sensitivity; [3]Risk reduction in disease progression or death vs. control arm

Enhancing the Product: SC Formulation for Shorter Infusion Time

Phase I PAVO Trial (daratumumab monotherapy)



Efficacy: ORR 52% (VGPR 32%, PR 20%)*, median PFS 12.3 months

Convenient: SC administration in 3-5 min*

Well tolerated: IRR 16%

Ongoing Studies:
Ph III: **COLUMBA**, AQUILA, PERSEUS, CEPHEUS, ANDROMEDA
Ph II: PLEIADES

*Chari et al, ASH, Dec. 2018
SC = subcutaneous
ORR = overall response rate
PR = partial response
VGPR = very good partial response
IRR = infusion related reactions
Image is for representational purposes only & does not reflect actual syringe used

2019 – COLUMBA SC safety & efficacy analysis

Ofatumumab (OMB 157)

Potential in Relapsing Multiple Sclerosis

- Collaboration with Novartis
- Fully Human mAb targeting CD20
  Well validated target
- Ph II data: high efficacy with low, self-administered, SC dose
- Potential for improved safety vs. IV treatments
- Phase III (ASCLEPIOS I & II) studies in relapsing MS fully recruited

2019 – ASCLEPIOS I & II completion & reporting

Tisotumab Vedotin

Building Our Pipeline: Addressing a High Unmet Medical Need

- 50:50 co-development with Seattle Genetics
- First-in-class, fully human antibody-drug conjugate (ADC), targets tissue factor
- Ph II innovaTV 204 trial in Cervical cancer ongoing, potentially pivotal
- Ongoing Ph II innovaTV 207 trial in variety of solid tumors & Ph II innovaTV 208 trial in ovarian cancer
- Expanding development with additional studies planned

2019 – Ph II innovaTV 204 Cervical study enrollment completed

Tisotumab Vedotin

Exploring Potential in Other Tumor Types

Completed

innovaTV 201*
- Phase I with Expansion cohorts
- Preliminary encouraging activity across different tumor types

Ongoing

innovaTV 207
- Phase II in solid tumors
- Colorectal neoplasms
- NSCLC
- Pancreatic cancer
- SCCHN

Ongoing

innovaTV 208
- Phase II in Ovarian cancer

* Accepted for publication in The Lancet Oncology (1Q 2019)

Enapotamab Vedotin

Building Our Pipeline: Potential in Solid Tumors

- Fully owned by Genmab
- Fully Human ADC, targets tumor-associated AXL
- AXL over-expressed on many resistant tumors
- ADC technology licensed from Seattle Genetics
- Ph I/II study ongoing in solid tumors: expansion cohorts rapidly recruiting

2019 – Expansion cohort efficacy data

HexaBody-DR5/DR5 (GEN1029)

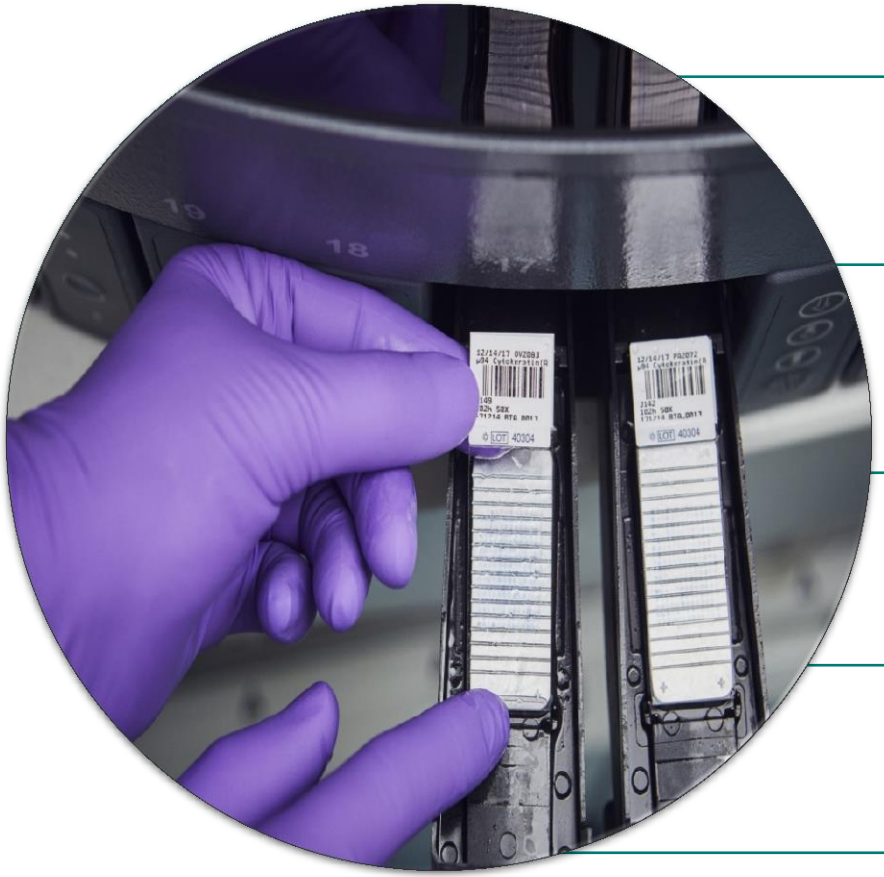
Building Our Pipeline: Technology Makes the Difference

- Fully owned by Genmab
- Targets DR5 in unique, differentiated way (new therapeutic modality for targeting DR5)
- Proprietary HexaBody Technology: first HexaBody product in the clinic
- Phase I/II ongoing in solid tumors

2019 – Initial dose escalation clinical data

DuoBody-CD3xCD20 (GEN3013)

Building Our Pipeline: Potential for Improved Efficacy & Safety



- Fully owned by Genmab
- Simultaneous binding to CD3 on T cells & CD20 on B cells
- Proprietary DuoBody Technology: first Genmab-owned DuoBody product in clinic
- Differentiated SC formulation
- Phase I/II with SC formulation ongoing in B-cell malignancies

2019 – Clinical data dose escalation cohorts

Building Our Pipeline: Next Wave of Clinical Products

2019 IND Targets – Targeted Investments

Genmab

DuoHexaBody-CD37

- Based on DuoBody & HexaBody platforms
- Potential in hem. malignancies
- 100% Genmab owned

- Novel target for Hem. Malignancies
- Unique mechanism-of-action

Genmab & BIONTECH

DuoBody-CD40x 4-1BB

- Bispecific antibody targeting CD40 & 4-1BB (CD137)
- Potential in solid cancers
- 50:50 w/ BioNTech

- Conditionally activates T cells
- Selective T cell expansion at tumor sites

DuoBody-PD-L1x 4-1BB

- Bispecific antibody targeting PD-L1 & 4-1BB (CD137)
- Potential in solid cancers
- 50:50 w/ BioNTech

- Conditionally activates T cells
- Provides Genmab with differentiated PD-L1 product

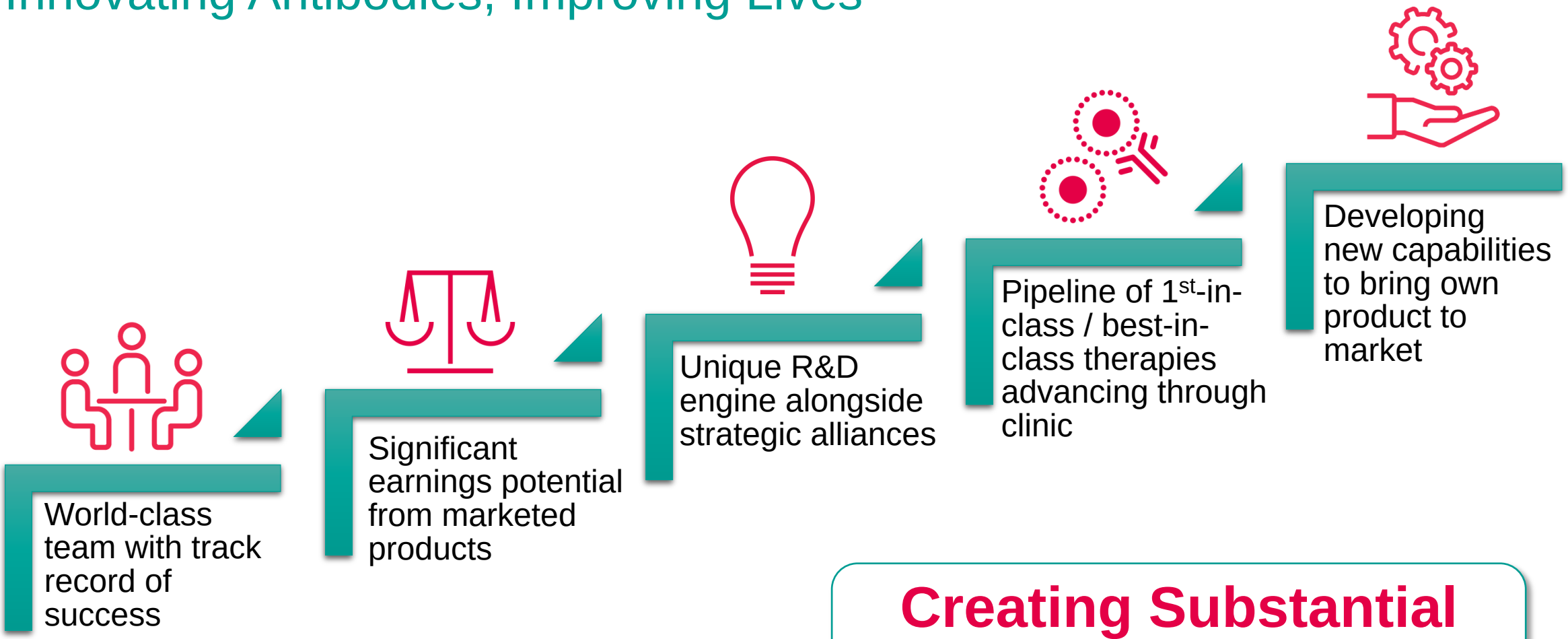
Key 2019 Priorities

Building a Robust Differentiated Product Portfolio

Priority	✓	Targeted Milestones
Daratumumab		» FDA decision on Phase III MAIA & CASSIOPEIA multiple myeloma (MM) submission » Phase III COLUMBA MM subcutaneous (SC) daratumumab safety & efficacy analysis
Ofatumumab		» Phase III ASCLEPIOS I & II relapsing multiple sclerosis SC ofatumumab study completion and reporting
Tisotumab Vedotin		» Phase II innovaTV 204 tisotumab vedotin recurrent / metastatic cervical cancer study enrollment complete by mid year
Innovative pipeline		» Phase II enapotamab vedotin expansion cohort efficacy analysis » Phase I/II HexaBody-DR5/DR5 initial clinical data » Phase I/II DuoBody-CD3xCD20 clinical data dose escalation cohorts » File INDs or CTAs for 3 new products

Delivering on Genmab's Promise

Innovating Antibodies, Improving Lives



Creating Substantial Value