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# Universities in the Economy

## The University of Glasgow Model

December 2009





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I can ... and will talk about a range of projects and initiatives where the University is contributing to the economy, including:

- Major Research Collaborations
- Engaging with SMEs
- Creating companies

...but first we have to be clear on...

What is the University for? This is often ill-considered or misunderstood

## **Our Mission:**

To create knowledge and disseminate knowledge.

- Knowledge creation through research
- Dissemination through
  - Publication
  - Teaching
  - Knowledge Transfer!



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So Knowledge Transfer/KE/Commercialisation fits the University mission. But what are our objectives in doing it?

This is a key question:

- Revenue for Universities?
- Academic reasons?
- Contribution to the Economy?



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Most people will answer yes to all three.

BUT – the three are profoundly different in terms of objectives, management and measures of success.

Let me explain ...

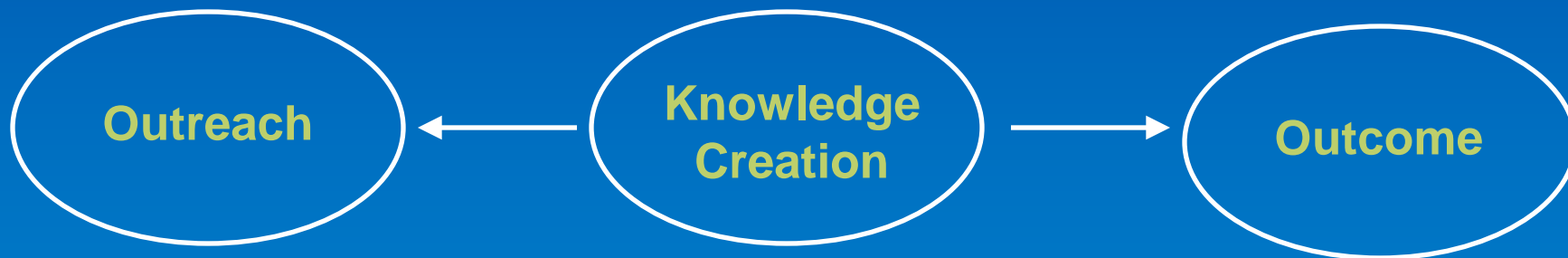


	Public Good	Academic Reasons	Revenue/Profit
Student placements	yes	?	no
Economic development	yes	?	no
SME networks	yes	?	no
Contract research	no	yes?	yes
Licences	no	no	yes
Spin-outs	no	no	yes

# The motivations, objectives and partners differ hugely

<b>Activity</b>	SME support/student enterprise	Collaborative research	Licensing/ Spin-outs
<b>Partners</b>	SMEs/ Students/ RDAs	Company Research Partners	Investors/ Entrepreneurs
<b>Aims</b>	Economic Development/ Public Good	Research Outputs	Financial returns/ Private Gain
<b>Measures</b>	Socio- Economic (Outreach)	Academic	Financial (outcome)
<b>Objectives</b>	<b>OUTREACH</b>	<b>Knowledge Creation</b>	<b>OUTCOME</b>

Can think of it as a spectrum of activity - knowledge is created at the centre and then transferred either:





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The University creates knowledge through research  
then EITHER:

-behaves like an Economic Development Agency – and  
does ‘Outreach’ activity

OR

– behaves like a Venturer – and does ‘Outcome’ activity



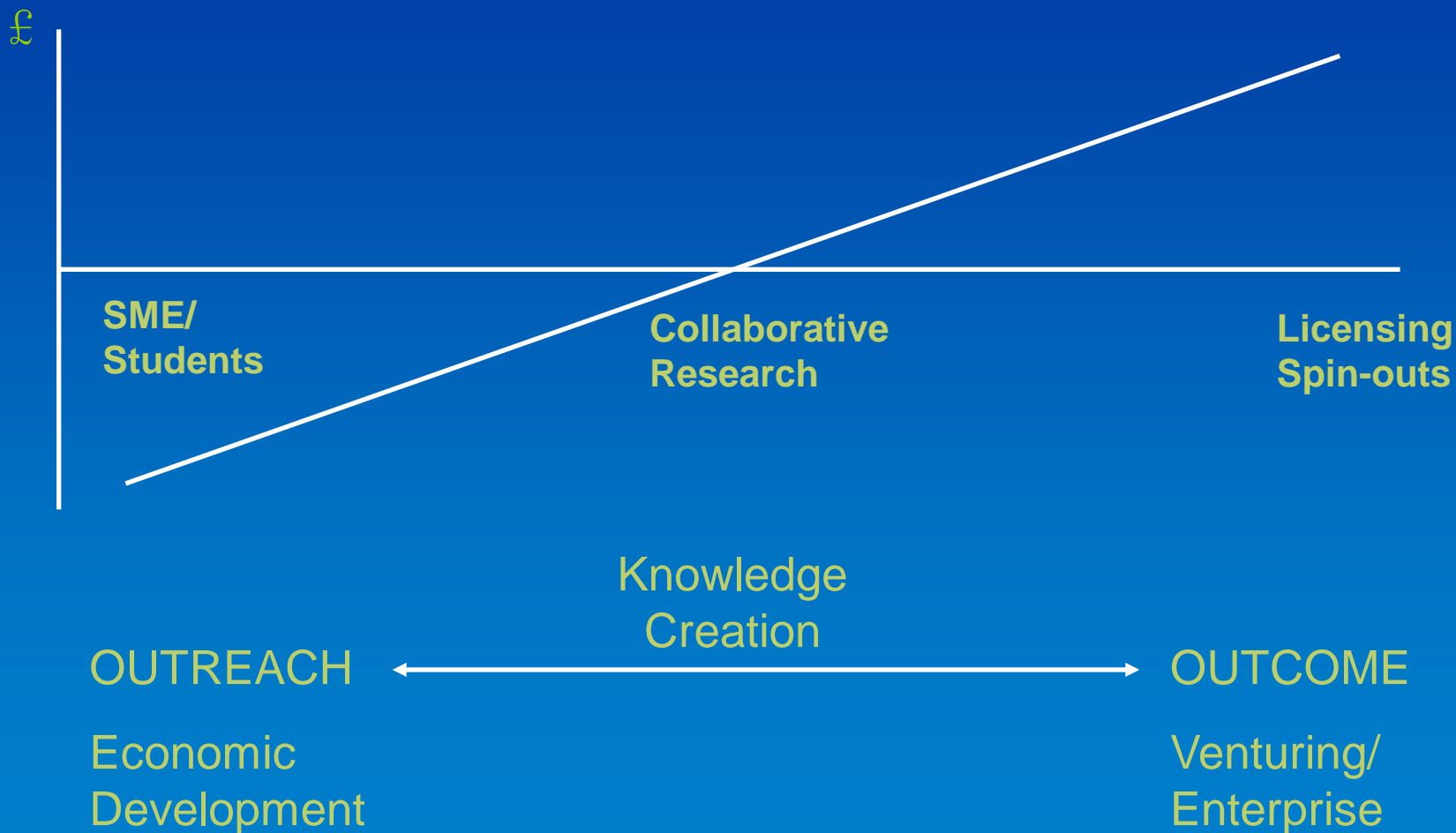
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**This is important because ...**

**... it defines what success is – it tells you how to  
measure performance**

**... and financial measures are limited**

# Financial Return to the University





## Knowledge Transfer – financial measures?

- So the more Economic Development we do, the more money we lose. Economic Development is a money-losing game.
- Venturing can make money, but on a very small number of projects.

These have significant policy implications.

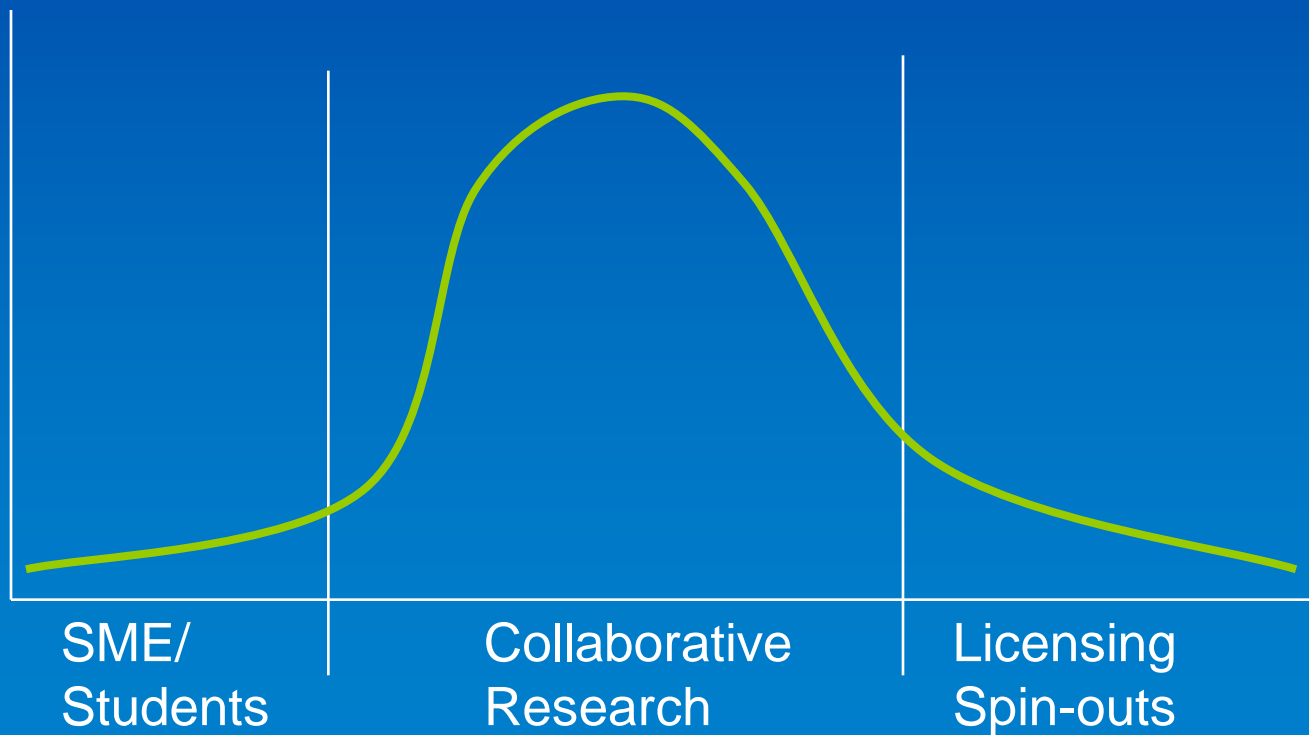
PLUS ...



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**For research-led Universities Economic Development and commercialisation are marginal.**

£ Turnover





**Now...**

**...some of this might sound like ‘statements of the bleedin’ obvious’, but they are not and do have significant implications for us:**

- 1. Universities and their TTOs are often described as schizophrenic in working with business...**

**...we sometimes act like business, but we sometimes act as economic developers. No-one else I know of is asked to do public good to assist the economy AND to make money from it.**



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**2. The most significant University contribution comes from working with companies on creating new knowledge – so measuring our engagement with industry is better than measuring licensing income.**

**2008/9**

**Glasgow University licensing income: £0.8m**

**Glasgow University Knowledge Transfer income: £66m**



### 3. ....and possibly the most important –

Universities seek to transfer knowledge by whatever is the best mechanism to get it used.

- Licensing/spin-out works for the most commercially valuable IP. We invest in commercialisation of that valuable 5%.
- For the other 95% our job is to get it out there to be used, however we can. This is very, very different to business, but it is part of our mission.

Licensing and spin-out don't work for this 95%, so we need new approaches.



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**So we need to look at ways of optimising our contribution across this spectrum...**

Shifting our knowledge at minimum cost

Partnering with business in creating knowledge

Getting our knowledge to market through commercialisation

**In Glasgow we have examples in all 3 categories:**

## **Outreach**

First Step  
Awards

EasyAccess IP

Venture Navigator/  
Interface

Student  
Enterprise

## **Collaborative Research**

TMRC

SAHSC

## **Outcome**

IP group



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## OUTCOME

### IPGroup

- LSE Listed; £300m
- Specialist investor in University spinout companies *in partnership with the University.*
- Currently in partnership with: Oxford (Chemistry), Southampton, KCL, York, Leeds, Bristol, Surrey, Bath and Queen Mary's (London)
- Professional Venture Capitalists as our partners
- Their aim is to make money from IP – if they make money, we make money, it is that simple.
- It is a small, focussed activity



## OUTCOME

### IP Group – key partnership terms

- £5M Initial Seed Investment Fund
- 25 year deal – but regular reviews
- Spin-out option university decision
- Exclusive first option to invest in all spin-outs
- Up to £500k per spin-out
- Joint decision making on investments
- IP2IPO 12% Founding share
- Significant fixed pre-money valuation/investment pro-rata
- Provision of one FTE member of staff to support projects
- No follow-on funding – aligned to maximise returns for founders
- Support for spin-out management team and networking to 2<sup>nd</sup> round investors

## **OUTCOME**

### **IP Group – Results to date**

- **4 Companies formed, 2 more ready, strong pipeline**
- **£2.7m investment in this pipeline**
- **Top level management acquired and hired**
- **First trade sale likely soon**

**...success is measured in commercial terms**



## OUTCOME

### Commercialisation - measures

- Numbers of spin-outs
  - Investment in spin-outs levered
  - Value of portfolio
  - Returns to the Founders
- ...exactly the measures any venturer/investor would use

## **Collaborative Research**

### **TMRC & Wyeth**

**‘Development and commercialisation of Translational Medicine in Scotland to deliver substantial long-term Research and development and educational programmes in Scotland, and accelerate access to new medicines for Scottish patients’**



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## Collaborative Research

### TMRC – Wyeth contributions

#### Wyeth:

- \$6m for TMRC set-up
- \$500k each year of five year initial period for running costs
- \$45m in Translational Programmes (TPs) at FEC over five year initial period
- 4-10 Wyeth full time collaboration staff in Scotland

#### Other Benefits:

- Technology and informatics training; share best practice in clinical ops, protocol design, study management
- Access to proprietary scientific databases and software
- Reasonable endeavours to commercialise IPR, Data, TTB

#### SE:

- £17.5m funding over initial five year period



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## Collaborative Research

### TMRC - University contributions

- Access to world-class academic and clinical researchers and facilities
- Background and Foreground IP (licenses or rights) relating to the TP's
- University / NHS in kind contributions of £16m million over five years
- Host institution set-up costs of £4.5m over five years
- Help get £5m in third party funding from non-industrial research bodies



## Collaborative Research

### TMRC – Measures

1. Number of new applications
2. Number of new awards
3. Value of new projects
4. Quality of research (publications and IP generated)

...classical research measures. Note projects are FEC....do not make any 'profit'.

## OUTREACH

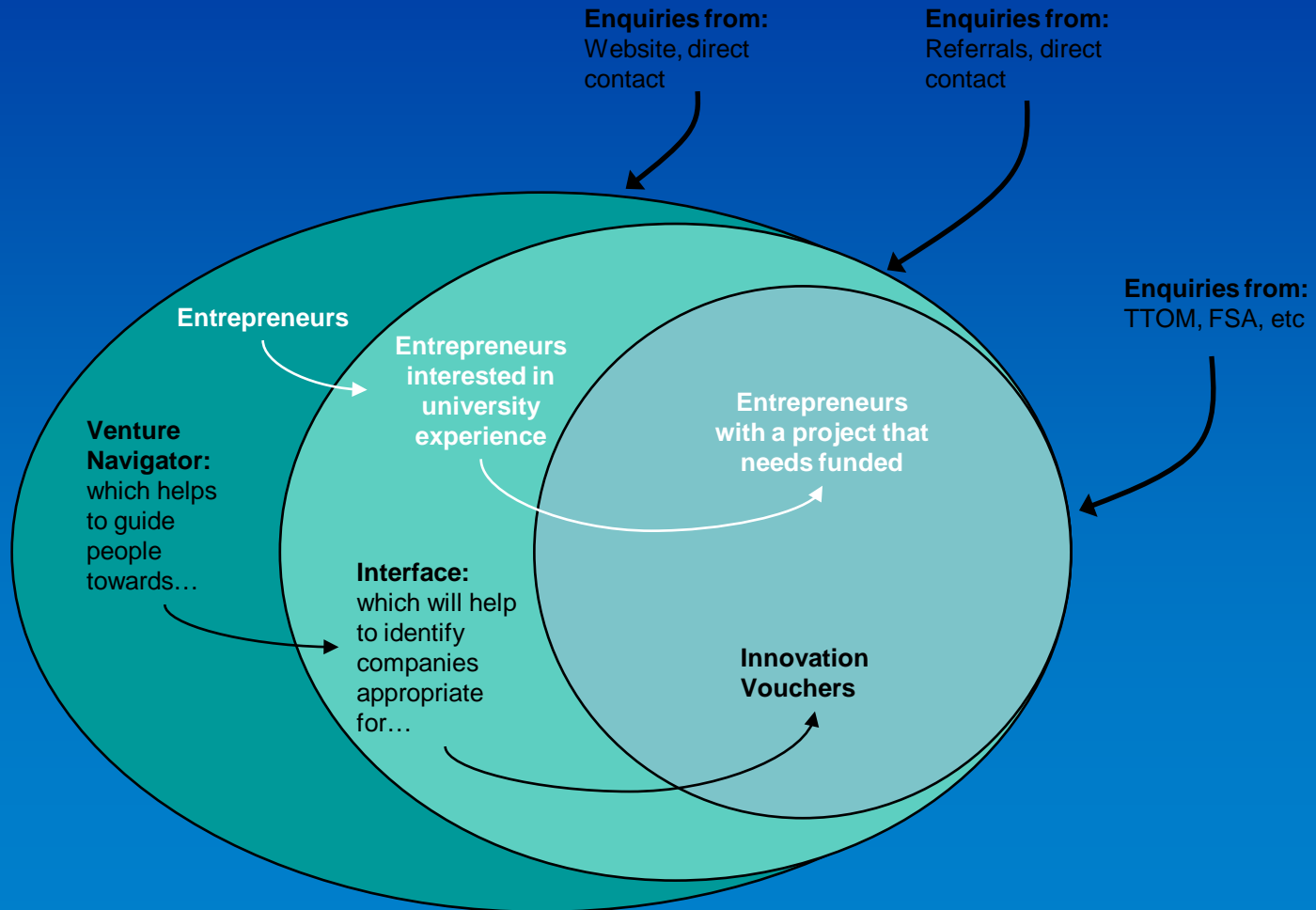
### Interface/Venture Navigator

- a **free, rapid and confidential** central point of access to the Scottish research base representing **all** Scottish Universities.
- [www.venturenavigator.co.uk](http://www.venturenavigator.co.uk)
- Web-based assessment enables companies to identify their needs
- People-based service responds to enquiries on research capabilities, consultancy, technology, access to equipment, facilities etc.

....the outreach model



# Interface/Venture Navigator





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## OUTREACH

### Interface/Venture Navigator- engagement

- 8,196 Registered VN users since launch in November 2007
- 969 Registered users in Scotland
- Over 161,130 visitors since launch
- Visits from 192 different Countries / Territories
- Over 2,677 assessments have been completed

## OUTREACH

### Interface/Venture Navigator- engagement

- 1671 enquires received by Interface
- 818 enquiries progressed to establishing capability and capacity
- 191 company - academic collaborative projects initiated
- 146 companies in discussion or negotiation with Universities
- 60% of organisations have not collaborated previously with academia
- 60% of enquiries are from Scottish SMEs

the actual return to the Universities from the project would be negative.  
The benefits are to the SMEs and the economy.

## OUTREACH

### Student Enterprise

Glasgow Student Enterprise aims to help students develop new skills by taking part in social events, competitions, training and hands on learning experiences as well as offering them an opportunity to start their own business.

Student Enterprise's aims are to help students:

- Be more confident, creative and inspirational
- Develop skills that will help with employability
- Gain from opportunities to manage and work with small businesses
- Take advantage of business start up opportunities
- Meet some of Scotland's most entrepreneurial and motivational speakers
- Travel the world and have fun!



## OUTREACH

### Student Enterprise - measures

- Numbers of students engaging
- Numbers of business plans created
- Quality of plans as measured by competition results
- Numbers of companies

Students involved in enterprise      1,113 last academic year

Student BP competitions won      21 in last six years

Student companies started      48 in last six years

Turnover or investment are indicators of activity, but again, return to University would be negative....but it is good for Scotland and the students.



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## OUTREACH

### First Step Awards

- £5000 grant to SMEs to engage in exploratory work with Glasgow researchers.
  - can be feasibility study, problem-based consultancy or expert advice
  - removes the barrier to the first step ie the cost of the first conversation
  - 108 to award, 26 awarded, same in the pipeline

Hugely popular with SMEs and researchers. Converting into follow-on discussions and work

....it does not make sense on a commercial basis

...it does make sense from an economic development standpoint



## OUTREACH

### EasyAccess IP

- We are exploring a new approach to IP engagement with SMEs
  - Licensing deals are a barrier for most Scottish SMEs
  - Most of our IP does not have sufficient commercial value to justify the significant investment required to commercialise it (the hugely valuable IP we commercialise in partnership)
  - For that IP which doesn't have significant potential, we will consider giving it away for free to an SME that can show us how it will deliver some economic development result.
  - The university cannot make money from this, but will help to create a more dynamic economy AND it is in line with our mission of getting our knowledge out there to be used...remember that's what we are for.



## In Summary:

- The nature of engagement of the University in the economy varies enormously.
- You must be clear on the role the University is playing at any given point.
- You must put in place mechanisms to support the different objectives and have the right measures for each.....DO NOT ask for outreach activity to become self-sustaining.
- **YOU MUST KNOW WHAT SUCCESS LOOKS LIKE TO KNOW WHETHER OR NOT YOU ARE SUCCEEDING....**



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**Thank you**

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