

# The NEO Smart Economy, Smart Processes, and Smart Data

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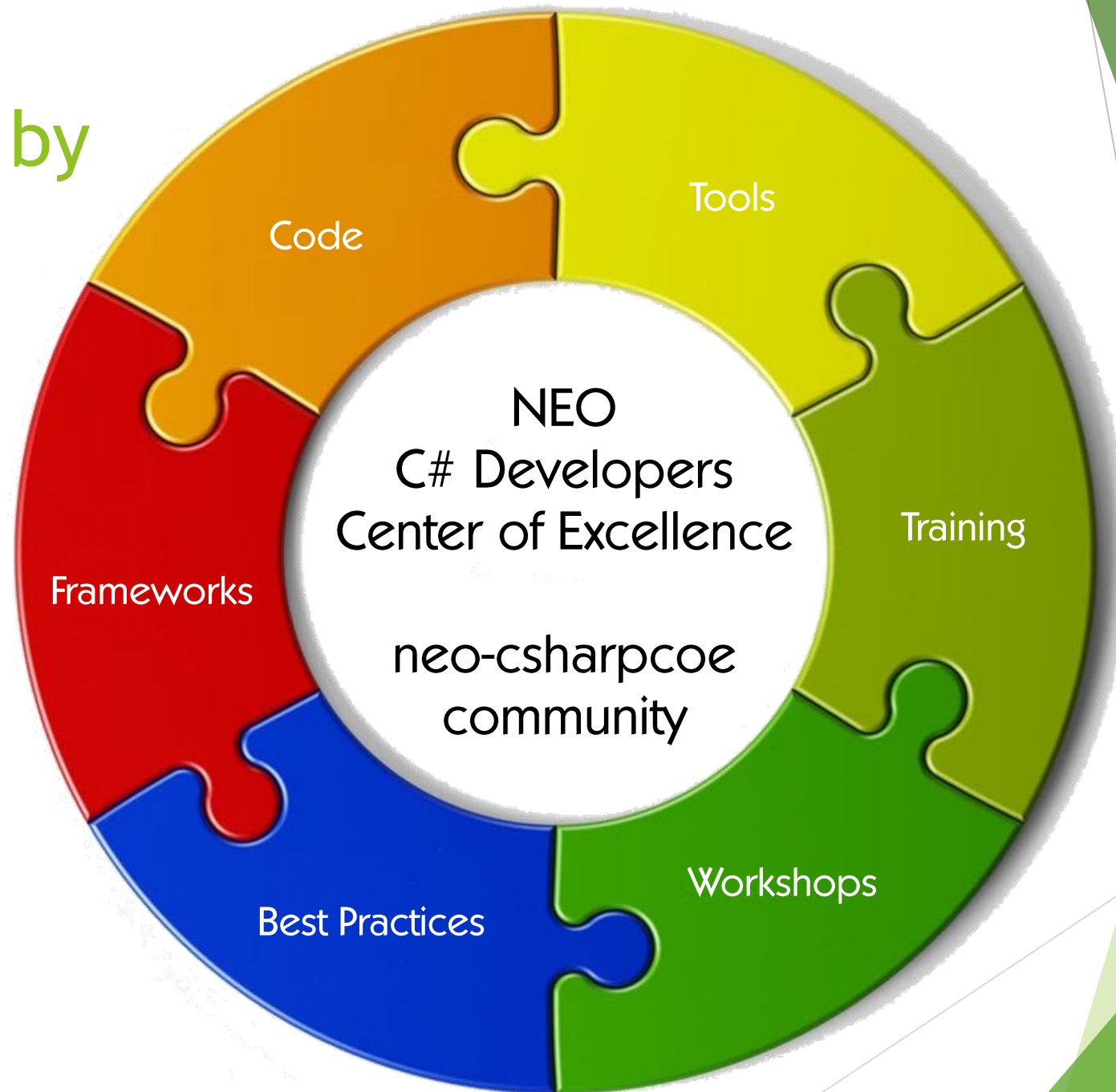
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NEO C# Developers Center of Excellence

<https://github.com/mwherman2000/neo-csharpcoe>



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# What is the NEO Smart Economy?



“The NEO Smart Economy is about the world where the boundaries between real assets in the physical world and digital assets in the digital world have been removed.”

[Malcolm Lerider, March 2018]

# Think Deeply about the NEO Smart Economy

Tomorrow

1. create & submit

AZ9Bmz6qmb0Z4  
ry1z8p2KF3ftyA2  
ckJAY

ATrzHaicmhRj15  
C3Vv6e6gLfLqhS  
D2PtTr

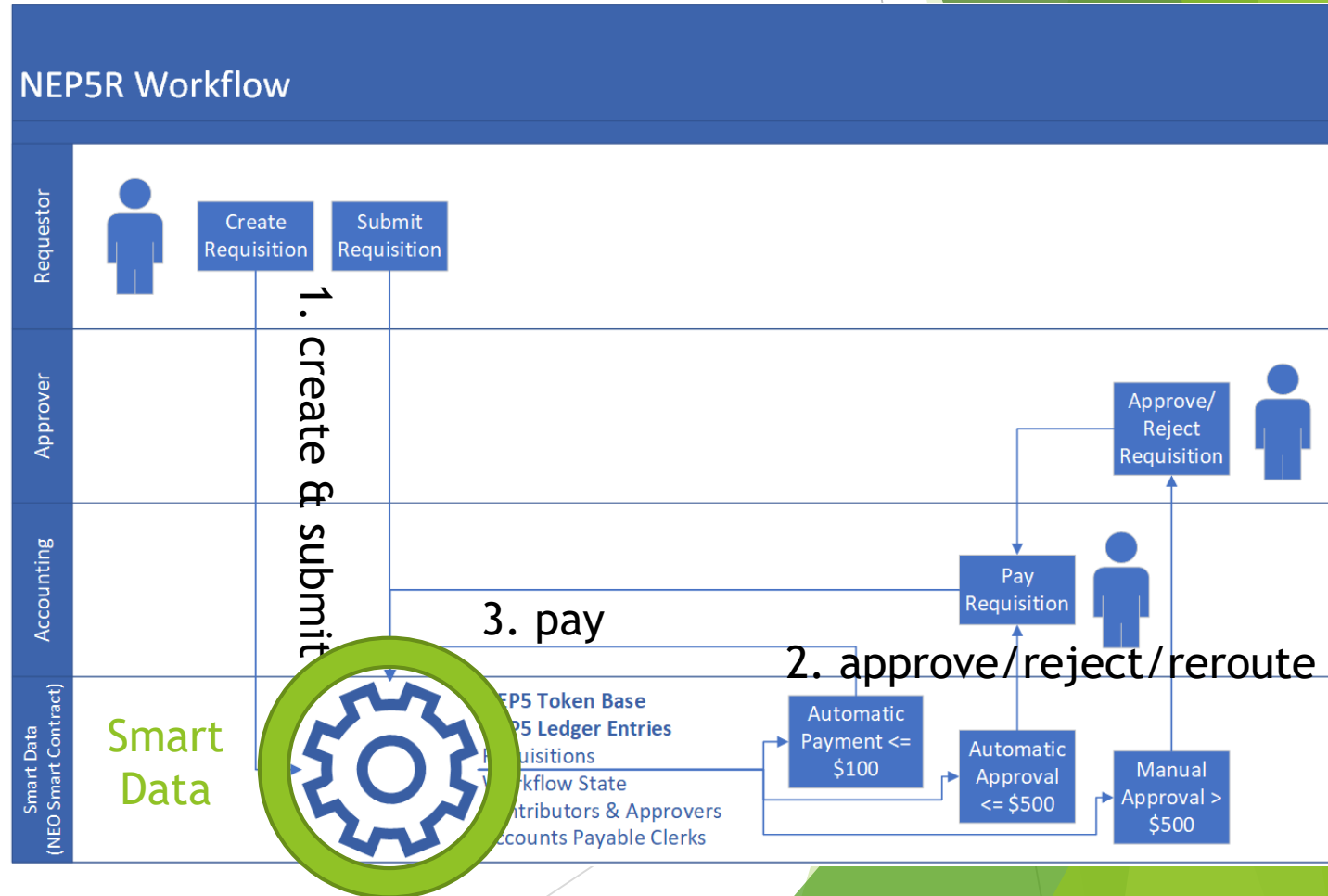
NEP5R  
Proposal

3. pay

AK2nJJpJr6o664  
CWJKi1QRXjqeic  
2zRp8y

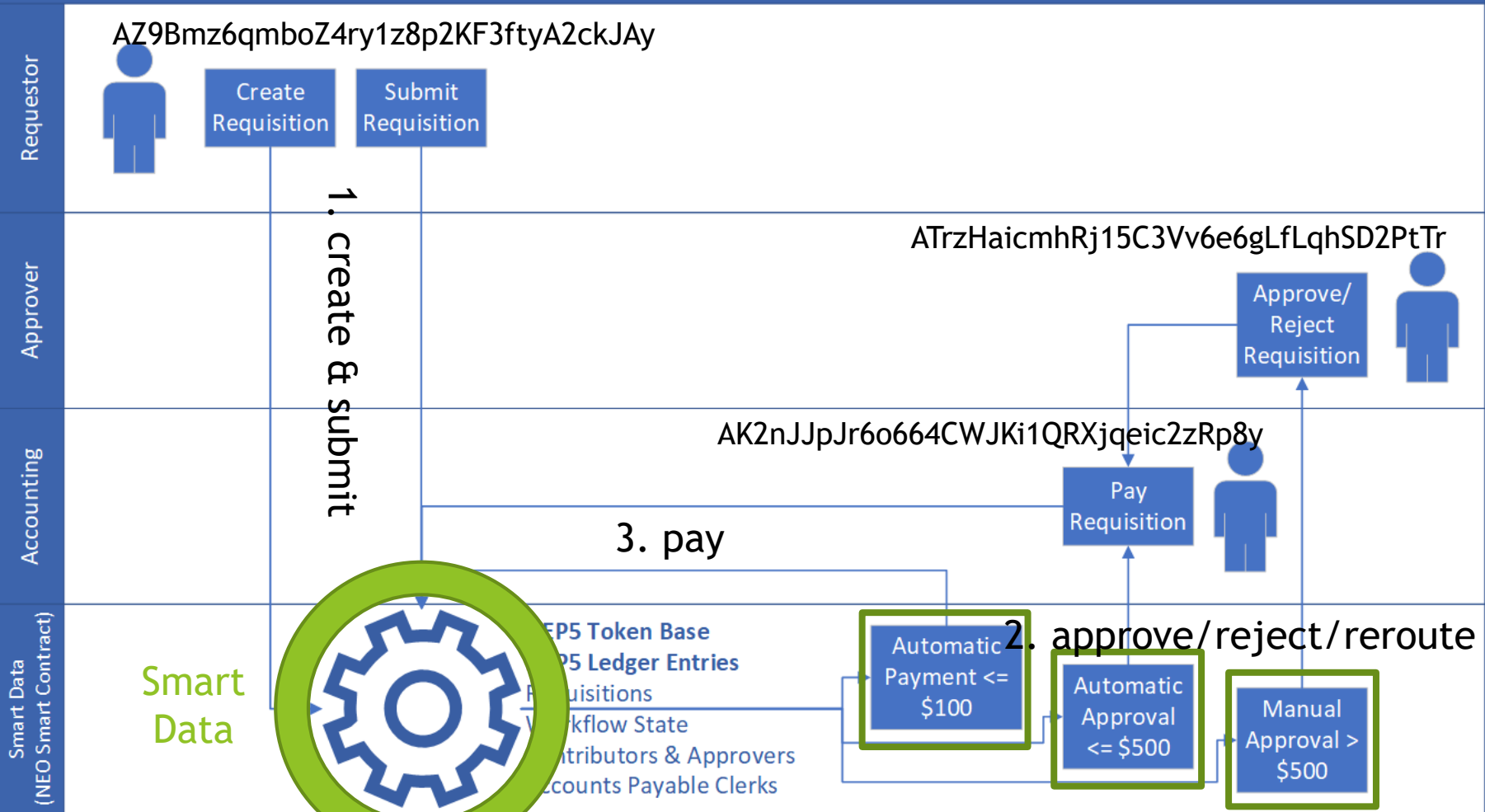
2. approve/reject/reroute

But what people and businesses need is...



# Smart Processes in the Smart Economy

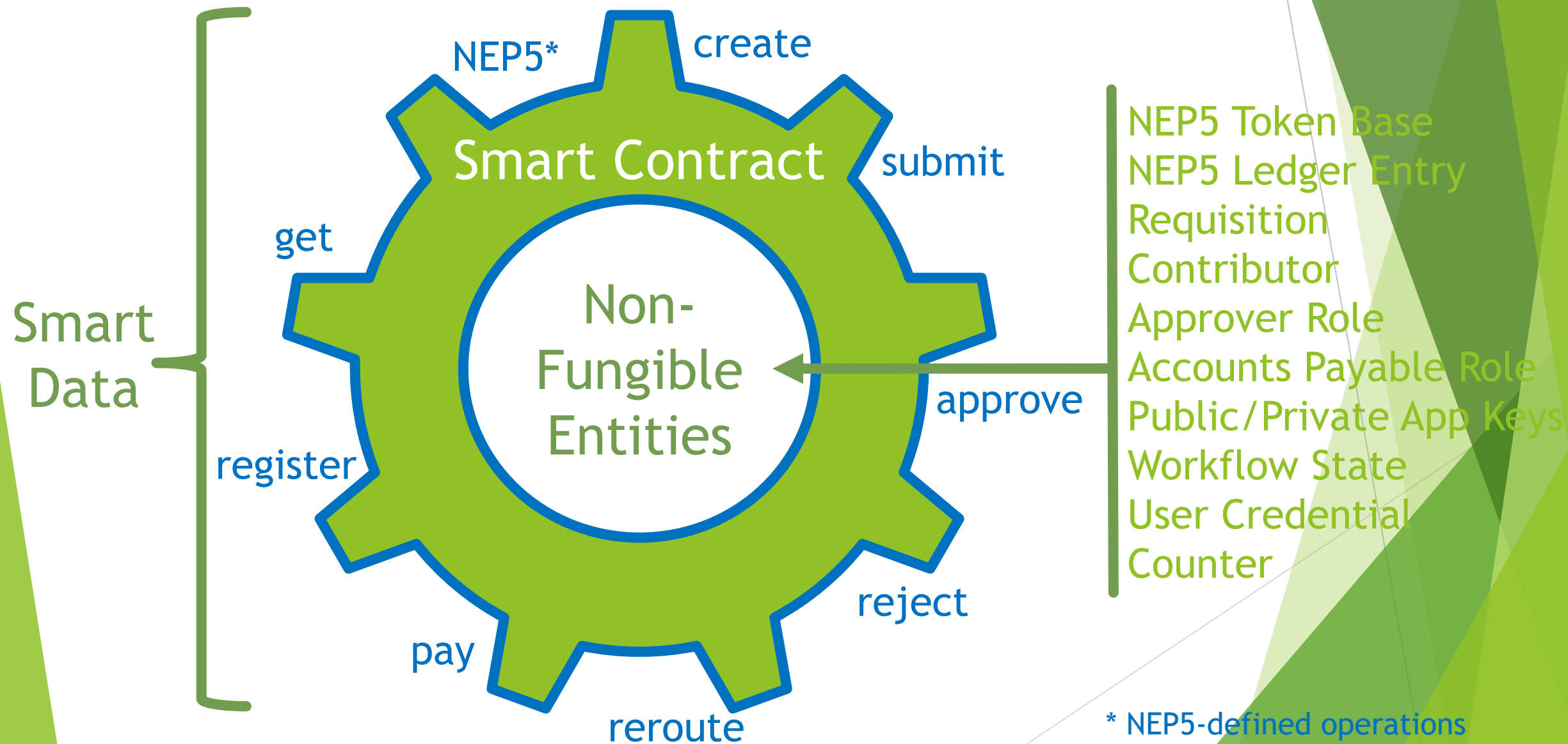
## NEP5R Workflow



## Use Cases

- ▶ Expense Reports
- ▶ Timesheets
- ▶ Contribution Reports
- ▶ Lottery Tickets
- ▶ Loyalty Points
- ▶ Discount Coupons
- ▶ Vouchers
- ▶ Stock Certificates
- ▶ Disbursements
- ▶ ...

# Smart Data = Smart Contract + Non-Fungible Entities



# What is a non-fungible token?

<https://github.com/Splyse/neo-nft-template> [<https://hashpuppi.es/>]

Joe Stewart @ Splyse...

- ▶ *A non-fungible token (NFT) can be thought of like a property deed - each one is unique and carries some non-mutable information (e.g. the physical address of the property) although other information, such as the owner of the property can be changed.*
- ▶ *An NFT smart contract is useful to track ownership of real-world items, as well as in online gaming, allowing users to possess unique characters or items of a limited supply, that can be transferred between users without requiring the permission of the game owner.*

# What is a Non-fungible Entity?

Any persistable entity that has one or more read-only properties (fields) that cannot be changed once the entity has been created.

## Examples

- ▶ Expense Reports
- ▶ Timesheets
- ▶ Contribution Reports
- ▶ Lottery Tickets
- ▶ Loyalty Points
- ▶ Discount Coupons
- ▶ Vouchers
- ▶ Stock Certificates
- ▶ Disbursements
- ▶ Money orders

*The most common document lifecycle management scenarios include expense report and absence report submission where a document is submitted to a workflow involving roles, such as the manager role, which approve the content before it flows to another system.*

[Workflow, Tomorrow's Application Logic, InformIT]



# Case Study: Recent Enterprise Workflow Assessment

- ▶ After a recent enterprise Nintex audit and analysis of 70 workflows
  - ▶ 55 of the workflows were found to be simple routing and approval workflows
  - ▶ 15 of the workflows had more than 5 actions representing more complex scenarios
  - ▶ This met the typical expectation that 80/20% of most of workflows are simple routing and approval vs. more complex scenarios
- ▶ *“In a typical enterprise 80% or more forms and document workflows are simple routing and approval workflows.”* [Joel Oleson, SharePoint Architect]

# When to use Blockchain Technology

*“Blockchain: the force multiplier for the smart economy” [Microsoft]*

## Questions to Ask

1. Is it a business process that crosses **trust boundaries**?
2. Do **multiple parties** manipulate the same data?
3. Are processes operating inefficiently or decisions delayed due to the **number of intermediaries**?
4. Does the business process involve **low-value, manual verification steps**?

## Use a Blockchain when there is a Need for

- ▶ Real-time transparency by connecting business processes across organizations
- ▶ Real-time, transparent access to a verifiable source of the truth across organization boundaries
- ▶ Introduce trust and increase efficiency amongst participants - reducing the need for intermediaries
- ▶ Improved efficiencies and increased confidence through automation enabled by smart contracts that execute consistently and reliably

**“Use blockchain technology when it matches the requirements of your application. Don’t automatically use blockchain technology simply because you’re re-platforming an existing application.” [Gartner 2018]**

I leave you with a challenge...

Think Deeply about NEO Smart Economy and ...

**TOKENIZE  
EVERY LITTLE THING  
#ELT**

**Tokenize Every Little Thing (ELT)**

<https://hyperonomy.com/2018/01/24/tokenization-of-every-little-thing-elt/>

# Questions?



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